# TRANSCRIPT OF RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1904.

No. 275.

THE UNITED STATES, APPELLANT,

vs.

THE HARVEY STEEL COMPANY.

APPEAL FROM THE COURT OF CLAIMS.

FILED MAY 25, 1904.

(19373.)

1 In the Court of Claims.

HARVEY STEEL COMPANY
*v.*
THE UNITED STATES. } No. 21110.

I.—*Communication of the Secretary of the Navy referring claim. Filed June 23, 1898.*

NAVY DEPARTMENT,
*Washington, June 22, 1898.*

SIR: I have the honor to transmit herewith, in pursuance of the provisions of section 1063 of the Revised Statutes, a number of papers described upon the accompanying schedule, relating to claim of the Harvey Steel Company for certain royalties under two contracts entered into with this Department, and dated, respectively, March 21, 1892, and April 12, 1893. The purpose of transmitting these papers is that this claim of the Harvey Company may receive trial and adjudication by the court, as provided by the statute cited.

Any further information afforded by the files and records of this Department in relation to the claim referred to will be promptly furnished upon call of the court.

Very respectfully,

JOHN D. LONG,
*Secretary.*

The CHIEF CLERK,
*Court of Claims.*

2 In the Court of Claims of the United States.

HARVEY STEEL COMPANY
*vs.*
THE UNITED STATES. } No. 21110.

II—*Petition. Filed December 3, 1898.*

*To the Chief Justice and Judges of the Court of Claims:*

The petition of Harvey Steel Company respectfully represents that said Harvey Steel Company at all times hereinafter mentioned was and now is a corporation created, organized, and existing under and by virtue of the laws of the State of New Jersey, and having its principal place of business in said State, and at all times it was, and still is, a citizen of the United States.

II. That in and by the endeavors and ingenuity of the late Hayward A. Harvey, now deceased, former president of the petitioner, the petitioner developed and introduced to the notice of the United States and its officers, especially those connected with the Navy Department thereof, certain decrementally hardened armor plates and a certain process for the treatment of armor plates and manufacturing the same, and was at great expense in connection therewith, and said process became widely known, as practiced under the direction of the petitioner, as the Harvey process for the treatment of armor plates, or as the process of "harveying" or

"harveyizing" or "harvey treating" armor plates, and such armor plates as "harveyed" or "harveyized" armor plates.

III. That on September 29th, 1891, letters-patent of the United
3 States were granted to the said Hayward A. Harvey, now deceased, late of Orange, New Jersey, for or in connection with said process, and said letters-patent were duly issued by the United States bearing date the said 29th day of September, 1891, and were numbered No. 460262, and since the date of said letters-patent the petitioner has acquired the right to use certain improvements in the composition for treating armor plates in the application of said Harvey process, and has reduced the same to practice and obtained letters-patent for the same.

IV. By written assignment, dated October 7, 1891, duly made and executed by the said Hayward A. Harvey, and recorded October 9th, 1891, in Liber C 45, page 291, of Transfers of Patents, in the Patent Office of the United States, the said Harvey Steel Company became and has thereafter continued to be and now is the owner of all and singular the patented rights in and to said process known as the Harvey process for the treatment of armor plates for use in the construction of vessels, as set forth in said letters patent of the United States, No. 460262, dated September 29th, 1891; and has also, by written assignment duly made and executed by said Hayward A. Harvey, become possessed of and now is the owner of all and singular other improvements and patents for the same, devised by the said Hayward A. Harvey, as aforesaid.

V. That the petitioner, being the owner of the said process and of the right to use and practise the same, and of the said letters patent relating thereto, introduced the same to the notice of the United States and particularly to the Navy Department thereof, and instituted numerous tests for exhibiting and demonstrating the efficiency of said process and its value in the treatment of armor plates.

4 VI. Thereupon, on the 21st day of March, 1892, certain written agreements were made and entered into between the petitioner and the Government of the United States, represented by the Secretary of the Navy, a copy of which is hereto annexed and marked "Exhibit A," by which the said United States agreed to supply armor plate manufactured or treated under the said Harvey process to certain vessels of war mentioned therein.

VII. That thereafter additional trial armor plates, treated in accordance with said Harvey process, were subjected to numerous experimental tests by the petitioner and by the officers and agents of the United States and of the Navy Department thereof, which demonstrated the beneficial results obtained from the application of the said Harvey process, and thereupon, on the 8th day of October, 1892, the said Harvey process was definitely adopted by the Navy Department, in accordance with the following letter:

"BUREAU OF ORDNANCE,
"NAVY DEPARTMENT,
"*Washington, D. C., October 8, 1892.*

"HARVEY STEEL CO.:

"SIRS: Your letter of the 29th ult., addressed to the honorable Secretary of the Navy, has been referred to this Bureau, which has cognizance of the matter.

"You are informed that the Harvey process for armor plates has been definitely adopted by the Navy Department.

"Respectfully,

"WM. M. FOLGER,
"*Chief of Bureau.*"

That thereupon the Government of the United States entered into an agreement with the Bethlehem Iron Company, of Bethlehem, Pa., for the treatment according to said Harvey process of armor plates for certain vessels of war, the application of said process to be under the direction of said Government of the United States, and the said Bethlehem Iron Company entered upon the performance of its said agreement.

VIII. On or about the 12th day of April, 1893, the United States, and the Navy Department thereof, being desirous of extending
5 their right to use the said Harvey process on all vessels it might thereafter build, and of making a new contract for a more extended use of the said process, said Harvey Steel Company, as party of the first part, entered into a contract in writing with the United States, as party of the second part, represented by Hilary A. Herbert, as Secretary of the Navy, a copy of which contract is annexed hereto and marked "Exhibit B," and made a part of this petition. By said last-mentioned contract it was agreed, among other things, that the party of the second part might, upon the terms therein stated, use and employ in the treatment of armor plates manufactured or to be manufactured for all naval vessels, the construction of which was authorized by Congress up to and including July 19, 1892, said Harvey process, and might use and employ the armor plates manufactured for such vessels according to said process, paying therefor to the party of the first part as royalty the sum of $96,056.46 (it being understood, however, that ten per cent of the said sum should be withheld by the party of the second part until, upon the receipt of the formulæ for the compounds used and employed in the application of the Harvey process, said process should be used and found to be efficient, and, in the judgment of the Secretary of the Navy, of satisfactory value).

And it was further agreed, in and by said contract of April 12, 1893, that the party of the second part, the said United States, should not only have the right to use and employ the aforesaid Harvey process in the treatment of armor plates for vessels which, at the date of said contract, had been authorized by Congress since the 19th day of July, 1892, but also for vessels which might after the date of said contract be authorized by Congress, and to use and employ armor plates for such vessels manufactured according to said process, paying therefore to the party
6 of the first part of royalty of one-half of one cent per pound of the finished plate.

IX. Said Harvey Steel Company, the petitioner, has furnished to the said party of the second part the formulæ for the compounds used and employed in the application of the Harvey process, and has furnished full and complete information regarding the composition of the compounds employed in the Harvey process and the application of the same, and has imparted to the party of the second part all information concerning any and all improvements which said party of the first part has

at any time made in or upon said process, and has in all other respects fully kept and performed all of the conditions of said contract dated April 12, 1893, on its part to be performed, and the said process has been tried by the said United States and has been found to be efficient, and, in the judgment of the Secretary of the Navy, of satisfactory value, and the petitioner accordingly requested payment of said reserved ten per cent, and the same was approved by an official communication, dated December 4, 1893, of which the following is a copy:

"BUREAU OF ORDNANCE,
"NAVY DEPARTMENT,
"*Washington City, December 4, 1893.*

"SIR. Referring to the Bureau's endorsement of the 28th of September on the letter of September 16th from the Harvey Steel Company, requesting payment of the reservation withheld under the agreement with that company of April 12th, 1893.

"1. The first Harvey-treated plate under the said agreement having been tested, with results demonstrating the satisfactory value and efficiency of the process, and a part of the 'Maine's' side armor having been set up in the shops and found to be satisfactory, there being no important irregularities due to the application of the process, it is recommended that the reservation referred to be now paid.

"2. Vouchers covering said reservation are submitted herewith.

"Respectfully,

"W. T. SAMPSON,
"*Chief of Bureau of Ordnance.*

"To the Honorable
"The SECRETARY OF THE NAVY."

7 X. Said Harvey process as set forth in said contract dated April 12, 1903 (Exhibit B), was used and employed in the treatment of armor plates, manufactured for naval vessels the construction of which was authorized by Congress up to and including July 19, 1892, including the plate mentioned in said letter of the Chief of the Bureau of Ordnance dated December 4, 1893, and said United States used and employed the armor plates for said vessels manufactured according to said process as aforesaid, and has paid the sum of $96,056.46 as royalty upon the Harvey armor used for said vessels, the construction of which was authorized by Congress up to and including July 9, 1892, and has paid the said ten per cent reserved therefrom by order of the Secretary of the Navy, in accordance with said communication of December 4, 1893.

XI. By act approved March 2nd, 1895, Congress authorized the construction of two battleships for the United States Navy, which were known, respectively, as "No. 5" and "No. 6," and subsequently named the "Kearsarge" and "Kentucky."

XII. On or about the 15th day of April, 1896, the United States, by the Secretary of the Navy, issued an advertisement dated on that day inviting proposals for nickel-steel armor plates for the armor of said battleships, to wit, the "Kearsarge" and the "Kentucky," and stated in said advertisement as follows:

"Bids are hereby invited for supplying the following-named material:
"About 6,000 tons, more or less, or nickel-steel armor, to be of the best material and domestic manufacture, part of which, as shown by the specifications, will be required to be treated by a process of supercarbonization known as the Harvey process."

Said advertisement further stated:

8 "The prices paid for armor treated by the Harvey process must not include anything for royalties, as the Department has acquired the right to use said process and will indemnify the contractor against all claims therefor."

The specifications referred to in said advertisement as aforesaid were contained in a printed circular approved by the Secretary of the Navy April 14th, 1896, which said specifications and circular in the schedule of armor required for each vessel designated the following plates to be "Harveyed:"

U. S. battleship "Kearsarge:"
Exhibit 1, side armor, 34 plates.
Exhibit 2, 13-inch, B. L. R. turrets, 12 plates.
Exhibit 3, 13-inch, B. L. R. barbettes, 22 plates.
Exhibit 4, 8-inch, B. L. R. turrets, 6 plates.
Exhibit 5, superstructure armor, 26 plates.
Exhibit 6, casemate armor, 26 plates.
Exhibit 7, conning tower, 2 plates.

U. S. battleship "Kentucky:"
Exhibit 1, side armor, 34 plates.
Exhibit 2, 13-inch, B. L. R. turrets, 12 plates.
Exhibit 3, 13-inch, B. L. R. barbettes, 22 plates.
Exhibit 4, 8-inch, B. L. R. turrets, 6 plates.
Exhibit 5, superstructure armor, 26 plates.
Exhibit 6, casemate armor, 26 plates.
Exhibit 7, conning tower, 2 plates.

XIII. On or about the 1st day of June, 1896, said United States, by the Secretary of the Navy, entered into two separate contracts dated on that day, one with the Bethlehem Iron Company and the other with the Carnegie Steel Company (Limited) to furnish, each in certain proportions, the armor described in said advertisement and said circular including therein the Harveyed armor aforesaid.

9 A copy of said contract, or the material parts thereof, between said United States and said The Carnegie Steel Company (Limited) is annexed hereto marked "Exhibit C" and made part of this petition. Said contract between said United States and said Bethlehem Iron Company was identical with said Exhibit C in all its provisions except as to the detailed schedule containing the number and description of Harveyed and other armor plates to be furnished thereunder.

XIV. As your petitioner is informed and believes, said contractors, Bethlehem Iron Company and The Carnegie Steel Company (Limited), have, since the date of said contracts, furnished to the said United States in pursuance of the provisions of said contracts, the armor designated in said contracts and in said advertisement and circular, or the principal part thereof amounting to fifty-five hundred (5500) tons of finished plates of said Harveyed armor called for by said contracts, and

said Harveyed armor has been received and accepted by said United States, and payments made therefor in accordance with said contracts, and said Harveyed armor has been and is used and employed by said United States for said vessels. In the manufacture of said Harveyed armor so furnished, accepted, used and employed as aforesaid, the same process, known as the Harvey process, was used and employed, which was exhibited to the Government of the United States and the Navy Department, as set forth in Paragraph V of this petition, and which formed the basis of the agreement (Exhibit A) and which was adopted by the Navy Department as set forth in Paragraph VII hereof, and which was referred to in said contract dated April 12, 1893 (Exhibit B), and which was used and employed and known as such at the date of said contract; and said Harvey process, so used and employed as aforesaid, in making said fifty-five hundred (5500) tons, was the same as was used and employed in the treatment and manufacture of the
10 armor plates referred to in the paragraph numbered X of this petition, and on which the royalty was paid as therein stated.

XV. Your petitioner has repeatedly applied to the Secretary of the Navy for an accounting of the royalties for said Harveyed armor furnished under said contracts and for payment thereon as provided by said contract dated April 12, 1893, but said Secretary has neglected and refused to pay the same, and on or about the 22nd day of June, 1898, referred the papers in this claim to this court, under the provisions of section 1063 of the Revised Statutes, as appears by letter dated June 22, 1898, a copy of which is annexed hereto, marked "Exhibit D," and made a part of this petition.

XVI. There is now due and owing from the said United States to said Harvey Steel Company under said agreement of April 12, 1893, as royalties for Harveyed armor used for said battleships "Kearsarge" and "Kentucky" the sum of $61,600.00, no part of which has been paid.

Your petitioner therefore prays the court that judgment may be rendered in its favor for the sum of $61,600.00.

HARVEY STEEL COMPANY,
(Sgd.) By S. S. PALMER,
*President, Petitioner.*

TRACY, BOARDMAN & PLATT,
*Attorneys for Petitioner.*

11 UNITED STATES OF AMERICA,
*Southern District of New York,*
*State and County of New York, ss:*

Personally appeared before me, notary public duly commissioned and appointed, S. S. Palmer, who, being duly sworn, deposes and says: That he is the president of the petitioner named in the foregoing petition and that his genuine signature is thereunto subscribed; that no assignment or transfer of the claim therein mentioned, or any part thereof, or any interest therein, has been made except as in said petition stated; and that said claimant is justly entitled to the amount therein claimed from the United States after allowing all just credits and offsets; and that deponent believes the facts as stated in said petition are true.

(Sgd.) S. S. PALMER.

Subscribed and sworn to before me in the county, State, and district aforesaid this 1st day of December, 1898.

[L. S.] F. STORRS HANSELL,
*Notary Public 201, N. Y. Co.*

Petitioner's address, Newark, New Jersey.

Attorneys' address, Tracy, Boardman & Platt, 35 Wall street, New York, N. Y.

12 EXHIBIT A.

Memorandum of an agreement of two parts, made and entered into this twenty-first day of March, A. D. 1892, by and between the Harvey Steel Company, a corporation created under the laws of the State of New Jersey, and doing business in said State, represented by the president of said corporation, of the one part (hereinafter called the party of the first part), and the United States, represented by the Secretary of the Navy, of the other part (hereinafter called the party of the second part).

Whereas the party of the first part is the owner of all and singular the patented rights in and to a certain process, known as the "Harvey process," for the treatment of armor plate for use in the construction of vessels; and

Whereas the parties have agreed and do hereby agree that, upon the terms hereinafter stated, armor plate manufactured or treated under the said "Harvey process" shall, so far as possible, be supplied to such of the following-described naval vessels as the Department may from time to time designate, to wit:

Cruiser No. 6, "Amphitrite."
Cruiser No. 7, "Monadnock."
Cruiser No. 8, "Terror."
Cruiser No. 9, "Texas."
Cruiser No. 10, "Maine."
Cruiser No. 11, "Monterey."
Cruiser No. 12, "New York."
Cruiser No. 13, "Indiana."
Gunboat No. 5, "Massachusetts."
Gunboat No. 6, "Oregon."
"Puritan," ram.

Whereas the said Harvey Steel Company, under date of March 3, 1891, in a communication signed by B. G. Clark, president, H. A. Harvey, general manager, and Theodore Sturges, treasurer, agreed to give the Navy Department the option of purchasing the right to use and employ the "Harvey process" for treating armor plates, as follows:

13 "We hereby agree to give to the Naval Department an option for the purchase of the application of the Harvey process for treating armor plates which was tested at the Naval Ordnance Proving Ground, Annapolis, Md., February 14, 1891, on the following terms, viz:

"In the event of the process proving of value, after further tests, and upon the demand by the Naval Department for its application to armor

plating, the sum of $75,000 is to be paid by the latter to the Harvey Steel Company as royalty therefor, and, as utilized, at the rate of one-half (½) of one (1) cent per pound of the weight of the finished plate. This royalty of one-half (½) of one (1) cent per pound is to cease when the said sum of $75,000 has been paid.

"The Navy Department is to have the right to use the process, should it so desire, without further compensation, upon all armor plating which is to be applied to vessels, the construction of which is authorized by Congress at this date. In the event of the authorization by Congress of the construction of other vessels of war than those above mentioned, a new contract for the further application of the Harvey process of treating armor plates is to be made between the Naval Department and the latter, should the Department so desire.

"It is understood that the Naval Department will undertake to bear all the expense of the experimental development of the process as applied to armor plates, our Mr. Harvey to furnish, in consultation with the Bureau of Ordnance, all details at present in his possession in regard to the process, or which he may personally *develop in the perfection of his* methods of treatment as applied to armor plating."

Whereas the Navy Department, under date of March 3, 1891, in a communication signed by Wm. M. Folger, Chief of the Bureau of Ordnance, accepted the terms of the offer of the Harvey Steel Company, as stated in the communication above mentioned, and by this agreement does accept the option offered by the party of the first part in the first paragraph of said communication; and

Whereas the party of the second part has agreed and does hereby agree to also pay, as hereinafter set forth, the expense of applying said process in the manufacture or treatment of said armor plate:

Now, therefore, it is mutually understood, covenanted, and agreed by and between the parties hereto that the party of the second part, upon the terms herein stated, may use and employ, in the treatment of armor plate manufactured or to be manufactured for naval vessels, as
14 hereinbefore stated, the hereinbefore-mentioned process known as the "Harvey process."

The party of the first part, in consideration of the premises, and provided the said process of treating said armor plate shall be conducted at the Bethlehem Iron Works, at South Bethlehem, Pennsylvania, or elsewhere, under the direction of the party of the first part, hereby guarantees that, in addition to the hereinbefore-mentioned royalty of one-half of one cent per pound, to be paid by the party of the second part to the party of the first part upon armor for vessels which have been authorized by Congress up to March 3, 1891, the additional cost to the party of the second part of applying the Harvey process, hereinbefore referred to, to the armor plate as aforesaid shall, during the period of one year from the date hereof, be nine-tenths of one cent ($0.009) per pound of the finished plate, and that after the expiration of the period of one year from the date hereof the said additional cost to the party of the second part shall not exceed nine-tenths of one cent per pound of the finished plate; and in case it shall be found that the actual cost of the application of the said process to the armor plate shall have been diminished during one year from the date hereof, then the said additional cost to the party of the second part

shall thereafter be equal to the said actual cost of the application of such treatment to the armor plate plus one-half (½) the difference between said actual cost of application and the sum of nine-tenths of one cent ($0.009) per pound of the finished plate.

The party of the first part hereby further covenants and agrees that it will hold and save harmless and, at its own expense, defend the United States from and against all and every demand or demands for or
15 on account of the use and employment of the "Harvey process" above mentioned in the manufacture and treatment of armor, and from all and every demand or demands which shall hereafter be made for the payment of any sum or sums of money in excess of the aforesaid cost for royalty and treatment of armor under said process, to be paid as hereinbefore specified and provided for in this contract.

Finally, it is hereby mutually understood, covenanted, and agreed by and between the parties hereto that the party of the second part shall render to the party of the first part quarterly reports of all armor plate manufactured or treated under the said Harvey process, which the party of the second part shall have received during the three months next preceding the dates of such reports, respectively, and within a period of thirty days after the rendition of each of said quarterly reports the party of the second part shall pay to the party of the first part such sum of money as may be required to cover the said royalty of one-half of one cent per pound, and also the cost of treatment by the said Harvey process of the armor plate which shall have been received by the party of the second part during the three months next preceding the commencement of said period of thirty days, it being hereby understood and agreed that the first of the said quarterly reports shall be rendered on or before the first day of May, 1892, and shall be thereafter rendered every three months until all the armor treated for vessels authorized by Congress to March 3, 1891, shall have been received by the party of the second part.

In witness whereof the respective parties hereto have hereunto
16 set their hands seals the day and year first above writtten.

THE HARVEY STEEL COMPANY,
By B. G. CLARK, *Pres.*
THE UNITED STATES,
By B. F. TRACY,
*As Secretary of the Navy.* [SEAL.]

Signed and sealed in presence of—
Attest:
[SEAL.] L. L. STURGES, *Sec'y pro tem.*
WM. B. REMEY, *Judge-Advocate-General,*
as to B. F. Tracy, *Secretary of the Navy.*

17 EXHIBIT B.

Memorandum of an agreement, of two parts, made and entered into this twelfth day of April, A. D. 1893, by and between the Harvey Steel Company, a corporation created under the laws of the State of New Jersey, and doing business in said State, represented by the president of said corporation, of the one part (hereinafter called the party of the first part), and the United States, represented by the Secretary of the Navy, of the other part (hereinafter called the party of the second part).

Whereas the party of the first part is the owner of all and singular the patented rights in and to a certain process, known as the Harvey process, for the treatment of armor plates for use in the construction of vessels, and of the exclusive right to the use and employment of armor plates manufactured according to said process, as particularly set forth in letters patent of the United States No. 460262, issued September 29, 1891, to Hayward A. Harvey, of Orange, New Jersey, for certain improvements in decrementally hardened armor plates and in the art of manufacturing the same; and

Whereas an agreement was made and entered into under date of March 21, 1892, by and between the aforesaid parties hereto, whereby the party of the first part granted to the party of the second part the right to use and employ the Harvey process aforesaid in the manufacture of armor plates for certain vessels of the Navy therein named, for the sum of $75,000, to be paid by the party of the second part to the party of the first part as royalty therefor, and as utilized, at the rate of one-half of one cent per pound of the weight of the finished plate, the party of the first part guaranteeing that the cost to the party of the second part of
18 the application of said process to armor plates shall not exceed nine-tenths of one cent per pound of the finished plate, provided the application of such process should be made under the direction of the party of the first part; and

Whereas the party of the second part has entered into an agreement with the Bethlehem Iron Company, of South Bethlehem, Pennsylvania, for the treatment, according to said Harvey process, of armor plates for certain of the vessels mentioned in the aforesaid agreement, at a price in excess of the limit guaranteed by the party of the first part hereto, as aforesaid, the application of such process not to be made under the direction of said party of the first part:

Now, therefore, the aforesaid agreement of March 21, 1892, is hereby cancelled and annulled, and it is hereby mutually understood, covenanted, and agreed by and between the parties hereto that for and in consideration of the premises, and in consideration of the sum of $96,056.46 to be paid by the party of the second part to the party of the first part as royalty, the party of the second part may, upon the terms hereinafter stated, use and employ, in the treatment of armor plates manufactured or to be manufactured for all naval vessels the construction of which was authorized by Congress up to and including July 19, 1892, the aforesaid Harvey process, and may use and employ the armor plates for said vessels manufactured according to said process, it being understood, however, that ten per cent of said sum shall be withheld by the party of the second part

until, upon the receipt of the formulæ for the compounds used and employed in the application of the Harvey process, said process shall have been tried and found to be efficient, and, in the judgment of the Secretary of the Navy, of satisfactory value.

19 The party of the first part hereby covenants and agrees that it will hold and save harmless, and, at its own risk and expense, defend the United States from and against all and every demand or demands for the payment of any sum or sums of money in excess of the aforesaid sum of $96,056.46 as royalty for or on account of the use and employment of said process in the treatment of armor plates under this agreement, or of the armor plates manufactured in accordance therewith, and from and against all and every demand or demands for or on account of any infringement or alleged infringement of patented rights appertaining to said process or plates.

It is hereby further mutually understood, covenanted and agreed by and between the parties hereto that the party of the second part shall have the right to use and employ the aforesaid Harvey process in the treatment of armor plates for vessels which have been since July 19, 1892, or which may hereafter be, authorized by Congress, and to use and employ armor plates for such vessels manufactured according to said process, paying therefor to the party of the first part a royalty of one-half of one cent per pound of the finished plate.

It is hereby further mutually understood, covenanted, and agreed by and between the parties hereto that the party of the first part shall furnish full and complete information regarding the composition of the compounds employed in the Harvey process, and the application of the same, and shall impart to the party of the second part all information concerning any and all improvements which said party of the first part may, at any time in the future, make in or upon said process as covered by the aforesaid letters patent, and that the party of the second part shall

20 have the right to adopt, use, and employ any or all of such improvements in said process, and to use the armor plates manufactured in accordance therewith under the terms of this agreement, without the payment of any compensation or royalty therefor to the party of the first part, in addition to that to be paid as hereinbefore stipulated.

It is hereby further mutually understood, covenanted, and agreed by and between the parties hereto that this agreement shall not, nor shall any interest herein, be transferred by the party of the first part to any other person or persons, and that no Member of or Delegate to Congress, officer of the Navy, nor any person holding any office or appointment under the Navy Department, shall be admitted to any share or part of this agreement or to any benefit to arise therefrom; but this stipulation, so far as it relates to Members of or Delegates to Congress, shall not be considered to extend to this agreement, it being made with an incorporated company.

It is hereby further mutually understood, covenanted, and agreed by and between the parties hereto that if, at any time, the party of the first part shall fail to comply with and fulfil the terms, conditions, and requirements of this agreement on its part, the party of the second part may demand and recover from the party of the first part, on account of such failure, and as liquidated damages, a sum of money equal to the penalty

of the bond accompanying this agreement, and that in case it should at any time be judicially decided that the party of the first part is not legally entitled, under the letters patent aforesaid, to own and control the exclusive right to the use and employment of said process and the decrementally hardened armor plates produced thereunder, as set forth in
21 the letters patent aforesaid, then the payment of royalty under the terms of this agreement shall cease, and all sums of money due the party of the first part from the party of the second part, as royalty for the use and employment of said process and armor plates, as aforesaid, shall become the property of the party of the second part.

The party of the second part, in consideration of the premises, hereby covenants and agrees that all warrants for payments to be made in accordance with the terms of this agreement shall be made payable to the party of the first part or its order.

In witness whereof, the respective parties hereto have hereunto set their hands and seals the day and year first above written.

HARVEY STEEL CO'Y., [SEAL.]
By H. A. HARVEY,
*President.*

Attest:
WM. ALLEN SMITH, *Sec'y.*

THE UNITED STATES,
By HILARY A. HERBERT. [SEAL.]
*As Secretary of the Navy.*

Signed, sealed, and delivered in the presence of—
SAM. P. LEMLY, *Judge-Advocate-General,*
as to Hilary A. Herbert, *Secretary of the Navy.*

22 EXHIBIT C.

*Contract for nickel-steel armor plates and appurtenances.*

This contract of two parts, made and concluded this first day of June, A. D. 1896, by and between the Carnegie Steel Company, Limited, a limited partnership association organized under the laws of the State of Pennsylvania and doing business in the county of Alleghany, in said State, represented by two members of the board of managers of said company, party of the first part, and the United States, represented by the Secretary of the Navy, party of the second part, witnesseth, that for and in consideration of the payments hereinafter specified the party of the first part, for itself and its successors and assigns and its legal representatives, does hereby covenant and agree to and with the United States as follows, that is to say:

First. The party of the first part will, at its own risk and expense, manufacture and deliver to the Navy Department, in the manner and within the periods prescribed and according to the conditions stated in the advertisement of the Secretary of the Navy, dated April 15, 1896, inviting proposals for nickel-steel armor plates, the proposal of the party of the first part under said advertisement, and the printed circular (including the drawings mentioned and described therein, with addenda

to specifications), approved by the Secretary of the Navy April 14, 1896, which advertisement, proposal, and circular, hereto annexed, shall be deemed and taken as forming part of this contract, with the like operation and effect as if the same were incorporated herein, the nickel-steel armor plates and appurtenances therein described or referred to and at the prices per ton for the different exhibits and for the total price as follows:

23 Class A.—For "Kearsarge."

Exhibit 1.

| | Approximate weight in tons. |
|---|---|
| Side armor, forward, harveyed | 60 |
| Side armor, double tapered plates, harveyed | 137 |
| Side armor, amidship, harveyed | 635 |
| Side armor, triangular athwartship, harveyed | 31 |
| Bolts and nuts | 10 |
| Total Class B, Exhibit 1 | 873 |

Exhibit 3.

| | |
|---|---|
| 13″ B. L. R. barbettes, harveyed | 568 |
| Bolts and nuts | 7 |
| Total Class A, Exhibit 3 | 575 |

Exhibit 4.

| | |
|---|---|
| Plate A, 8″ B. L. R. turrets, harveyed | 44 |
| Plate B, 8″ B. L. R. turrets, harveyed | 93 |
| Tops, 8″ B. L. R. turrets | 15 |
| Sight-hood tops, 8″ B. L. R. turrets | 1 |
| Seam straps, 8″ B. L. R. turrets | 2 |
| Sight hoods, 8″ B. L. R. turrets | 7 |
| Bolts and nuts | 1 |
| Total Class A, Exhibit 4 | 163 |

Exhibit 6.

| | |
|---|---|
| Casemate, athwartship, harveyed | 34 |
| Casemate, side, harveyed | 292 |
| Bolts and nuts | 3 |
| Total Class A, Exhibit 6 | 329 |

Class B.—For "Kentucky."

Exhibit 3.

| | Approximate weight in tons. |
|---|---|
| 13″ B. L. R. barbettes, harveyed | 568 |
| Bolts and nuts | 7 |
| Total Class B, Exhibit 3 | 575 |

24 Exhibit 4.

| | |
|---|---|
| Plate A, 8″ B. L. R. turrets, harveyed | 44 |
| Plate B, 8″ B. L. R. turrets, harveyed | 93 |
| Tops, 8″ B. L. R. turrets | 15 |
| Sight-hood tops, 8″ B. L. R. turrets | 1 |
| Seam straps, 8″ B. L. R. turrets | 2 |
| Sight hoods, 8″ B. L. R. turrets | 7 |
| Bolts and nuts | 1 |
| Total Class B, Exhibit 4 | 163 |

Exhibit 6.

| | |
|---|---|
| Casemate, athwartship, harveyed | 34 |
| Casemate, side, harveyed | 292 |
| Bolts and nuts | 3 |
| Total Class B, Exhibit 6 | 329 |
| Total | 3,007 |

Subject, however, to such variations in said total price, and in the weights, and in the aggregate weight of said armor plates and appurtenances, as may result from changes which may be made under provisions in the aforesaid circular relating to changes, or from the operation of other conditions therein contained which may affect the total price or weights or aggregate weight aforesaid: Provided, however, That the aggregate weight of the armor plates and appurtenances to be delivered under this contract shall be finally determined in accordance with the several conditions and provisions relating thereto contained in the aforesaid circular; such armor plates and appurtenances to be of domestic manufacture, and to conform to and with all the details, requirements, and stipulations relating to material, manufacture, tests, inspection, and in all respects to the conditions stated in the aforesaid circular.

* * * * * * *

25 Fifth. The party of the first part, in consideration of the premises, hereby covenants and agrees to hold and save the United States harmless from and against all and every demand or demands of any nature or kind for or on account of the adoption of any plan, model, design, or suggestion, or for or on account of the use of any patented

invention, article or appliance, excepting the use and employment of the Harvey process, which has been or may be adopted or used in or about the manufacture or production of said armor plates and appurtenances, or any part thereof, under this contract, and to protect and discharge the Government from all liability on account thereof, or on account of the use thereof, by proper releases from patentees or otherwise, and to the satisfaction of the Secretary of the Navy, it being expressly understood and agreed that the party of the second part shall hold and save the party of the first part harmless from and against all and every demand or demands on account of infringement of patented rights in using and employing said Harvey process in the treatment of armor plates under this contract.

* * * * * * *

26 EXHIBIT D.

In reply address the Secretary of the Navy and refer to No. 1552–98.
E. P. H.

NAVY DEPARTMENT,
*Washington, D. C., June 22, 1898.*

SIR: I have the honor to transmit herewith, in pursuance of the provisions of section 1063 of the Revised Statutes, a number of papers described upon the accompanying schedule, relating to the claim of the Harvey Steel Company for certain royalties, under two contracts entered into with this Department, and dated, respectively, March 21, 1892, and April 12, 1893. The purpose of transmitting these papers is that this claim of the Harvey Company may receive trial and adjudication by the court, as provided by the statute cited.

Any further information afforded by the files and records of this Department in relation to the claim referred to will be promptly furnished upon call of the court.

Very respectfully, JOHN D. LONG,
*Secretary.*

The CHIEF CLERK,
*Court of Claims.*

27 SCHEDULE.

Papers relating to the claim of the Harvey Steel Company for royalty.

"A." Letter, dated October 14, 1897, of William Allen Smith, Treasurer of the Harvey Steel Company, to the Secretary of the Navy, requesting account and payment of royalties due that company.

"B." Agreement, dated March 21, 1892, granting to the Government the right to use the Harvey process in the manufacture of armor plate.

"C." Agreement, dated April 12, 1893, cancelling the agreement of March 21, 1892, and granting the right to the Government to use and employ the Harvey process in the manufacture of armor.

"D." Letter of the Bureau of Ordnance, dated December 4, 1893, submitting voucher for payment of ten per cent reservation to the Harvey Steel Company.

"E." Letter of the Bureau of Ordnance, dated November 3, 1894, recommending that no further royalties be paid to the Harvey Steel Company.

"F." Letter of the Bureau of Ordnance, dated September 27, 1895, recommending that no further royalties be paid to the Harvey Steel Company.

"G." Harvey patent No. 376194.

"H." Harvey patent No. 460262.

"I." Harvey patent No. 498390.

"J." Letter of Harvey Steel Company, dated October 23, 1895, relative to the facts upon which the conclusion of Capt. Sampson is based.

"K." Decree of the circuit court of the United States, eastern district of Pennsylvania, in the case of the Harvey Steel Company vs. the Bethlehem Iron Company.

"L." Decree of the circuit court of the United States, western district of Pennsylvania, in the case of the Harvey Steel Company vs. The Carnegie Steel Company.

"M." Brief of Hon. J. R. Soley, on the question whether the alleged invalidity of the patent of the Harvey Steel Company is a defense in a suit for royalty, under contract with the company for use of Harvey process.

"N." Letter of the Commissioner of Patents, dated December 27, 1897, relating to the Harvey patents, with enclosures: Opinion of examiners and list of patents.

"O." Report of Bureau of Ordnance, dated December 20, 1897, showing armor manufactured at or above the temperature prescribed in the Harvey patents.

28 "P." Memorandum of the Bureau of Ordnance, dated January 7, 1898.

"Q." Letter, dated June 27, 1893, of the Carnegie Steel Company, relative to "harveyizing armor."

"R." Letter, dated October 22, 1893, of Harvey Steel Company enclosing copies of decrees and injunctions in cases of Harvey Steel Company vs. Bethlehem Iron Company; and Harvey Steel Company vs. Carnegie Steel Company.

"S." Letter of the Harvey Steel Company, dated November 17, 1897, calling attention to decrees furnished, in cases against the Bethlehem Iron Company and the Carnegie Steel Company.

"T." Letter of Harvey Steel Company, dated November 19, 1897, relative to payment of royalty under the agreement of April 12, 1893.

"U." Memorandum of the Judge-Advocate-General relating to the claim of the Harvey Steel Company, November 30, 1897.

"V." Supplementary memorandum by the Judge-Advocate-General dated January 7, 1898.

29 III.—*Traverse. Filed March 10, 1903.*

In the Court of Claims of the United States. December term, A. D. 1903–4.

HARVEY STEEL CO.
*vs.*
THE UNITED STATES. } No. 21110.

And now comes the Attorney-General, on behalf of the United States, and answering the petition of the claimant herein, denies each and every allegation therein contained, and asks judgment that the petition be dismissed.

L. A. PRADT,
*Assistant Attorney-General.*

Filed March 10, 1903.

IV.—*Argument and submission of case.*

At a Court of Claims held on the 10th and 11th days of March, 1903, this case was argued and submitted

30 *V.—Findings of fact as amended and conclusion of law filed by the court.*

On May 25, 1903, the court filed its findings of fact, and on February 29, 1904, it filed an order amending the same. Said findings as amended and the conclusion of law are as follows: (See page 49 of this record for order of Feby. 29, 1904.)

This case having been heard by the Court of Claims, the court, upon the evidence, makes the following

FINDINGS OF FACT.

I.

The Harvey Steel Company, the claimant herein, is, and at all times since the year 1887 has been, a corporation created, organized, and existing under the laws of the State of New Jersey.

II.

On the 29th day of September, 1891, letters patent of the United States, bearing date on that day, and numbered 460262, had been granted to the said Hayward A. Harvey, for such "Harvey" process and armor plates, and by a written assignment, dated October 7, 1891, the said letters patent had been assigned to and had become vested in the claimant, who then, and at all times thereafter, has continued to be, and now is, the owner of all patented rights in and to said process and armor plates, and all rights otherwise acquired for practicing, using, or producing the same.

31

## III.

In 1890 the claimant exhibited to the Chief of the Bureau of Ordnance of the Navy Department an armor plate, and informed him that Mr. Hayward A. Harvey had discovered a process for hardening such plates which would produce plates of a combined hardness and toughness which had not yet been attained by manufacturers. To test this invention the Chief of Ordnance procured two plates from well-known manufacturers—the Linden Steel Company—hardened by known existing methods. One of these was given to the claimant to harden by the Harvey process. The other was retained by the Ordnance Bureau. Both were subjected ultimately to the same test. The Chief of Ordnance officially reported this test to the Secretary of the Navy as follows:

"One plate, about 2½ feet square and 6 inches thick, was carbonized, in a gradually decreasing amount, to a depth of 3 inches, and subjected to a comparative ballistic test by the attack of a 6-pounder Hotchkiss projectile, with a similar plate untreated. The resulting penetration in the untreated plate was about 3 inches. In the carbonized plate it was nil, the projectile being completely shattered.

"In view of these results, which were reproduced and corroborated by further experiments, the Bureau has ordered an untreated armor plate 8 feet by 6 feet by 10½ inches, and proposes to have erected at the Washington Navy-Yard the necessary plant for treatment by the Harvey process. It will then be subjected to a ballistic attack with the 6-inch gun, and a comparative study made with the effects upon the foreign plates recently tested at Annapolis.

"The object of the experiments, as will be apparent, is the development of an armor plate which shall possess a superficial hardness and the toughness inherent in all steel, or one of its alloys."

## IV.

In February, 1891, the Chief of Ordnance, to further test the Harvey process, procured two armor places from a foreign manufacturer—Schneider & Co.—known as Creusot plates. One of these in like manner was retained by the Ordnance Bureau, and one the claimant hardened, and both were subjected to the same test. The Chief of Ordnance officially reported the results of this test to the Secretary of the Navy as follows:

"In February last took place the test of the Creusot 10½-inch steel plate, which had been treated by the Harvey process at the Washington Navy-Yard. The plate was attacked by seven 6-inch armor-piercing shells—three Holtzer and four Carpenter—fired from a 6-inch gun of 35 calibers, the striking velocity being 2,065 foot-seconds. The greatest penetration was 4 inches, except in one round, that at the center of the plate, where the point of the shell reached the backing. All the projectiles were broken up. The plate was cracked, but until the last round none were detached from the backing; at this round about one-eighth of the plate fell to the ground. These results are remarkable and indicated to the Department a probability that in this treatment has been found the means of producing the ideal armor plate—a hard front combined with a tough back, without any weld or other line of demarcation between the two.

32

## V.

Following these tests, on the 3d day of March, 1891, at the request of the Navy Department an option was given by the claimant to the Navy Department for the purchase of the application of the Harvey process for treating armor plates, which option is recited and set forth in the contract of 21st March, 1892, set forth in finding VI.

## VI.

On the 3d day of March, 1891, the Navy Department accepted the offer or option of the claimant, and agreed to comply with the terms thereof; and on the 21st day of March, 1892, the following contract was entered into by and between the claimant and the Secretary of the Navy:

"Memorandum of an agreement of two parts, made and entered into this twenty-first day of March, A. D. 1892, by and between the Harvey Steel Company, a corporation created under the laws of the State of New Jersey, and doing business in said State, represented by the president of said corporation, of the one part (hereinafter called the party of the first part), and the United States, represented by the Secretary of the Navy, of the other part (hereinafter called the party of the second part).

"Whereas the party of the first part is the owner of all and singular the patented rights in and to a certain process, known as the 'Harvey process,' for the treatment of armor plate for use in the construction of vessels; and

"Whereas the parties have agreed and do hereby agree that, upon the terms hereinafter stated, armor plate manufactured or treated under the said 'Harvey process' shall, so far as possible, be supplied to such of the following-described naval vessels as the Department may from time to time designate, to wit:

"Cruiser No. 6. 'Amphitrite.'
"Cruiser No. 7. 'Monadnock.'
"Cruiser No. 8. 'Terror.'
"Cruiser No. 9. 'Texas.'
"Cruiser No. 10. 'Maine.'
"Cruiser No. 11. 'Monterey.'
"Cruiser No. 12. 'New York.'
"Cruiser No. 13. 'Indiana.'
"Gunboat No. 5. 'Massachusetts.'
"Gunboat No. 6. 'Oregon.'
"'Puritan.' Ram.

"Whereas the said Harvey Steel Company, under date of March 3, 1891, in a communication signed by B. G. Clark, president; H. A. Harvey, general manager, and Theodore Sturges, treasurer, agreed to give the Navy Department the option of purchasing the right to use and employ the 'Harvey process' for treating armor plates, as follows:

"We hereby agree to give to the Naval Department an option for the purchase of the application of the Harvey process for treating armor

plates, which was tested at the Naval Ordnance Proving Ground, Annapolis, Md., February 14, 1891, on the following terms, viz:

"In the event of the process proving of value, after further tests, and upon the demand by the Naval Department for its application to armor plating, the sum of $75,000 is to be paid by the latter to the Harvey Steel Company as royalty therefor, and as utilized, at the rate of one-half (½) of one (1) cent per pound of the weight of the finished plate. This royalty of one-half (½) of one (1) cent per pound is to cease when the said sum of $75,000 has been paid.

"The Navy Department is to have the right to use the process, should it so desire, without further compensation, upon all armor plating which is to be applied to vessels, the construction of which is authorized by Congress at this date. In the event of authorization by Congress of the construction of other vessels of war than those above mentioned, a new contract, for the further application of the Harvey process of treating armor plates, is to be made between the Naval Department and the latter, should the Department so desire.

"It is understood that the Naval Department will undertake to bear all the expense of the experimental development of the process as applied to armor plates, our Mr. Harvey to furnish, in consultation with the Bureau of Ordnance, all details at present in his possession in regard to the process, or which he may personally develop, in the perfection of his methods of treatment as applied to armor plating.

33 "Whereas the Navy Department, under date of March 3, 1891, in a communication signed by Wm. M. Folger, Chief of the Bureau of Ordnance, accepted the terms of the offer of the Harvey Steel Company, as stated in the communication above mentioned, and by this agreement does accept the option offered by the party of the first part in the first paragraph of said communication; and

"Whereas the party of the second part has agreed and does hereby agree to also pay, as hereinafter set forth, the expense of applying said process in the manufacture or treatment of said armor plate:

"Now, therefore, it is mutually understood, covenanted, and agreed by and between the parties hereto that the party of the second part, upon the terms herein stated, may use and employ, in the treatment of armor plate manufactured or to be manufactured for naval vessels, as hereinbefore stated, the hereinbefore-mentioned process known as the 'Harvey process.'

"The party of the first part, in consideration of the premises, and provided the said process of treating said armor plate shall be conducted at the Bethlehem Iron Works, at South Bethlehem, Pennsylvania, or elsewhere, under the direction of the party of the first part, hereby guarantees that, in addition to the hereinbefore-mentioned royalty of one-half of one cent per pound, to be paid by the party of the second part to the party of the first part, upon armor for vessels which have been authorized by Congress up to March 3, 1891, the additional cost to the party of the second part of applying the Harvey process, hereinbefore referred to, to the armor plate, as aforesaid, shall, during the period of one year from the date hereof, be nine-tenths of one cent ($0.009) per pound of the finished plate, and that after the expiration of the period of one year from the date hereof the said additional cost to the party of the second

part shall not exceed nine-tenths of one cent per pound of the finished plate, and in case it shall be found that the actual cost of the application of the said process to the armor plate shall have been diminished during one year from the date hereof, then the said additional cost to the party of the second part shall thereafter be equal to the said actual cost of the application of such treatment to the armor plate plus one-half ($\frac{1}{2}$) the difference between said actual cost of application and the sum of nine-tenths of one cent ($0.009) per pound of the finished plate.

"The party of the first part hereby further covenants and agrees that it will hold and save harmless and, at its own expense, defend the United States from and against all and every demand or demands for or on account of the use and employment of the 'Harvey process,' above mentioned, in the manufacture or treatment of armor, and from all and every demand or demands which shall hereafter be made for the payment of any sum or sums of money in excess of the aforesaid cost for royalty and treatment of armor under said process, to be paid as hereinbefore specified and provided for in this contract.

"Finally, it is hereby mutually understood, covenanted, and agreed by and between the parties hereto that the party of the second part shall render to the party of the first part quarterly reports of all armor plate manufactured or treated under the said Harvey process, which the party of the second part shall have received during the three months next preceding the dates of such reports, respectively, and within a period of thirty days after the rendition of each of said quarterly reports the party of the second part shall pay to the party of the first part such sum of money as may be required to cover the said royalty of one-half of one cent per pound, and also the cost of treatment by said Harvey process of the armor plate which shall have been received by the party of the second part during the three months next preceding the commencement of said period of thirty days, it being hereby understood and agreed that the first of the said quarterly reports shall be rendered on or before the first day of May, 1892, and shall be thereafter rendered every three months until all the armor treated for vessels authorized by Congress to March 3, 1891, shall have been received by the party of the second part.

"In witness whereof the respective parties hereto have hereunto set their hands and seals the day and year first above written.

"THE HARVEY STEEL COMPANY,
"By G. B. CLARK, *Pres.*
"THE UNITED STATES,
"By B. F. TRACY,
"*As Secretary of the Navy.* [SEAL.]

"Signed and sealed in the presence of—
"Attest:
[SEAL.] "L. L. STURGES, *Secty. pro tem.*

"WM. B. REMEY, *Judge-Advocate-General,*
"as to B. F. Tracy, *Secretary of the Navy.*"

34

VII.

Thereafter additional trial armor plates were subjected to numerous experimental tests by the claimant and by the officers and agents of the United States, and on the 8th day of October, 1892, the claimant was notified that the said process was definitely and formally adopted by the Navy Department by the following letter:

"DEPARTMENT OF THE NAVY, BUREAU OF ORDNANCE,
"*Washington, D. C., October 8, 1892.*

"The HARVEY STEEL CO.,
"*Newark, N. J.*

"SIRS: Your letter of the 29th ultimo, addressed to the honorable Secretary of the Navy, has been referred to this Bureau, which has cognizance of the matter.

"You are informed that the Harvey process for armor plate has been definitely adopted by the Navy Department.

"Respectfully,

"WM. M. FOLGER,
"*Chief of Bureau.*"

VIII.

Acting under the requirement of said contract of March 21, 1892, by which the claimant agreed that their Mr. Hayward A. Harvey should furnish to the United States all details then in his possession in regard to the process, or that he might develop in the perfection of his method of treatment, the said United States, on February 18, 1893, and on March 14, 1893, required the said claimant and the said Hayward A. Harvey to furnish and reveal to the Navy Department its secret process and improvements, and thereupon the claimant did so reveal the same.

IX.

On the 30th of March, 1893, the defendants, by the Secretary of the Navy, proposed a settlement between the Navy Department and the claimant, which proposal was in the words following:

35

BUREAU OF ORDNANCE,
NAVY DEPARTMENT,
*Washington City, March 30, 1893.*

The HARVEY STEEL COMPANY,
*Newark, N. J.*

SIRS: I am directed by the Secretary of the Navy to propose the following settlement of the contract question at present under discussion between the Navy Department and the Harvey Steel Company, viz:

The contract of March 21st, 1892, between the Navy Department and the Harvey Steel Company to be annulled, the price to be paid for the cost of the treatment of armor plates by the Harvey process having been arranged for by contracts with the Bethlehem Iron Company and the Carnegie Steel Company.

A new contract to be made between the Secretary of the Navy and the Harvey Steel Company, by which the Department agrees:

1. To pay at once the sum of $96,056.46—this sum being the total royalty, at the rate of ½ c. per pound upon 8,576.47-tons of armor, the amount of armor which the Department proposes to Harveyize intended for vessels, the construction of which was authorized by Congress prior to March 21st, 1892, and for which the contract of that date was made. Also for the armor of the "Iowa" and "Brooklyn," authorized since that date, and for which no contract exists.

2. To pay a royalty of ½ c. per pound on all future contracts for armor to be treated by the Harvey process.

3. The Harvey Steel Company to furnish all information regarding the composition of the compound employed in the Harvey process, and all information regarding its application in possession of the company. Also any improvements which the Harvey Steel Company may make in said process at any future time.

Respectfully,

W. T. SAMPSON,
*Chief of Bu. Ordnance.*

X.

On the 12th day of April, 1893, the Navy Department entered upon a new contract with the claimant, in and by which it agreed to pay to the said claimant the sum of $96,056.46 (it being understood, however, that 10 per cent of the said sum should be withheld by the United States until, upon the receipt of the formulæ for the compounds used and employed in the application of the Harvey process, said process should be used and found to be efficient, and in the judgment of the Secretary of the Navy of satisfactory value), and should have the right to employ the said process on all vessels of war which might, after July 19, 1892, be authorized by Congress upon the payment of royalty of one-half of 1 cent per pound for the finished plate; and the defendants, on or about the 12th day of April, 1893, paid to the said claimant the said sum of $96,056.46, less the 10 per cent reserved therefrom. This contract is in the terms following:

"Memorandum of an agreement, of two parts, made and entered into this 12th day of April, A. D. 1893, by and between the Harvey Steel Company, a corporation created under the laws of the State of New Jersey and doing business in said State, represented by the president of said corporation, of the one part (hereinafter called the party of the first part), and the United States, represented by the Secretary of the Navy, of the other part (hereinafter called the party of the second part).

"Whereas the party of the first part is the owner of all and singular the patented rights in and to a certain process, known as the Harvey process, for the treatment of armor plates for use in the construction of vessels, and of the exclusive right to the use and employment of armor plates manufactured according to said process, as particularly set forth in letters patent of the United States, No. 460262, issued September 29, 1891, to Hayward A. Harvey, of Orange, New Jersey, for certain

improvements in decrementally hardened armor plates and in the art of manufacturing the same; and

36 "Whereas an agreement was made and entered into, under date of March 21, 1892, by and between the aforesaid parties hereto, whereby the party of the first part granted to the party of the second part the right to use and employ the Harvey process aforesaid in the the manufacture of armor plates for certain vessels of the Navy therein named for the sum of $75,000, to be paid by the party of the second part to the party of the first part as royalty therefor, and as utilized, at the rate of one-half of one cent per pound of the finished plate, the party of the first part guaranteeing that the cost to the party of the second part, of the application of said process to armor plates, shall not exceed nine-tenths of one cent per pound of the finished plate, provided the application of such process should be made under the direction of the party of the first part; and

"Whereas the party of the second part has entered into an agreement with the Bethlehem Iron Company of South Bethlehem, Pennsylvania, for the treatment, according to said Harvey process, of armor plates for certain of the vessels mentioned in the aforesaid agreement, at a price in excess of the limit guaranteed by the party of the first part hereto, as aforesaid, the application of such process not to be made under the direction of said party of the first part,

"Now, therefore, the aforesaid agreement of March 21, 1892, is hereby canceled and annulled, and it is hereby mutually understood, covenanted, and agreed by and between the parties hereto, that for and in consideration of the premises and in consideration of the sum of ninety-six thousand and fifty-six dollars and forty-six cents ($96,056.46) to be paid by the party of the second part to the party of the first part as royalty, the party of the second part may, upon the terms hereinafter stated, use and employ in the treatment of armor plates manufactured or to be manufactured for all naval vessels, the construction of which was authorized by Congress up to and including July 19, 1892, the aforesaid Harvey process, and may use and employ the armor plates for said vessels manufactured according to said process, it being understood, however, that ten per cent of said sum shall be withheld by the party of the second part until, upon the receipt of the formulæ for the compounds used and employed in the application of the Harvey process, said process shall have been tried and found to be efficient, and, in the judgment of the Secretary of the Navy, of satisfactory value.

"The party of the first part hereby further covenants and agrees that it will hold and save harmless, and at its own risk and expense defend the United States from and against all and every demand or demands for the payment of any sum or sums of money in excess of the aforesaid sum of $96,056.46 as royalty for or on account of the use and employment of said process in the treatment of armor plates under this agreement, or of the armor plates manufactured in accordance therewith, and from and against all and every demand or demands for or on account of any infringement or alleged infringement of patented rights appertaining to said process or plates.

"It is hereby further mutually understood, covenanted, and agreed by and between the parties hereto that the party of the second part shall

have the right to use and employ the aforesaid Harvey process in the treatment of armor plates for vessels which have been since July 19, 1892, or which may hereafter be authorized by Congress, and to use and employ armor plates for such vessels manufactured according to said process, paying therefor to the party of the first part a royalty of one-half of one cent per pound of the finished plate.

"It is hereby further mutually understood, covenanted, and agreed by and between the parties hereto that the party of the first part shall furnish full and complete information regarding the composition of the compounds employed in the Harvey process, and the application of the same, and shall impart to the party of the second part all information concerning any and all improvements which said party of the first part may, at any time in the future, make in or upon said process as covered by the aforesaid letters patent, and that the party of the second part shall have the right to adopt and use and employ any or all of such improvements in said process, and to use the armor plates manufactured in accordance therewith under the terms of this agreement, without the payment of any compensation or royalty therefor to the party of the first part, in addition to that to be paid as hereinbefore stipulated.

37 "It is hereby further mutually understood, covenanted, and agreed by and between the parties hereto, that this agreement shall not, nor shall any interest herein, be transferred by the party of the first part to any other person or persons, and that no member of or delegate to Congress, officer of the Navy, nor any person holding any office or appointment under the Navy Department, shall be admitted to any share or part of this agreement or to any benefit to arise therefrom; but this stipulation, so far as it relates to members of or delegates to Congress, shall not be considered to extend to this agreement, it being made with an incorporated company.

"It is hereby further mutually understood, covenanted, and agreed by and between the parties hereto, that if, at any time, the party of the first part shall fail to comply with and fulfill the terms, conditions, and requirements of this agreement on its part, the party of the second part may demand and recover from the party of the first part, on account of such failure, and as liquidated damages, a sum of money equal to the penalty of the bond accompanying this agreement, and that in case it should at any time be judicially decided that the party of the first part is not legally entitled, under the letters patent aforesaid, to own and control the exclusive right to the use and employment of said process and the decrementally hardened armor plates produced thereunder, as set forth in the letters patent aforesaid, then the payment of royalty under the terms of this agreement shall cease, and all sums of money due the party of the first part from the party of the second part, as royalty for the use and employment of said process, and armor plates, as aforesaid, shall become the property of the party of the second part.

"The party of the second part, in consideration of the premises, hereby covenants and agrees that all warrants for payments to be made in accordance with the terms of this agreement shall be made payable to the party of the first part or its order.

"In witness whereof, the respective parties hereto have hereunto set their hands and seals the day and year first above written.

"HARVEY STEEL CO'Y,
"By H. A. HARVEY, *President.* [SEAL.]

"Attest:

"WM. ALLEN SMITH, *Sec'y.*

"THE UNITED STATES,
"By HILARY A. HERBERT,
"*as Secretary of the Navy.* [SEAL.]

"Signed, sealed, and delivered in the presence of—
"SAM. C. LEMLY,
"*Judge-Advocate-General.*
"as to Hilary A. Herbert,
"*Secretary of the Navy.*"

XI.

Afterwards, on or about December 7, 1893, the defendants' officers being satisfied that the claimant had complied with the said contract of April 12, 1893, and demonstrated the value and efficiency of the process, the 10 per cent withheld by the United States under said contract of April 12, 1893, was paid over to the claimant.

38 XII.

The Congress of the United States, by act approved on or about March 2, 1895, authorized the construction of two battle ships for the United States Navy, which were known respectively as No. 5 and No. 6, and subsequently named the "Kearsarge" and "Kentucky," and on or about the 15th day of April, 1896, the United States, by the Secretary of the Navy, issued and had advertised on that day inviting proposals for the supply of nickle-steel armor plates for the said two battle ships, to the amount of about 6,000 tons, the said advertisements requiring of the bidders that the said armor plates should be "treated by a process of super-carburization known as the 'Harvey' process," and the said advertisement further stating to the bidders as follows:

"Bids are hereby invited for supplying the following named material: About 6,000 tons, more or less, of nickle-steel armor, to be of the best material and domestic manufacture, part of which, as shown by the specifications, will be required to be treated by a process of super-carbonization known as the Harvey process."

"The prices paid for armor treated by the 'Harvey' process must not include anything for royalties, as the Department has acquired the right to use said process and will indemnify the contractors against all claims thereof."

XIII.

The Bethlehem Iron Company and the Carnegie Steel Company (Limited), having made bids in accordance with said specifications and advertisements, the United States, on or about the 1st day of June, 1896,

by its Secretary of the Navy, entered into two separate contracts with said companies, respectively, in which they agreed to furnish in certain proportions the armor described in said advertisements and circulars, including therein the "Harveyed" armor; and in compliance therewith, proceeded to manufacture and treat the armor plates, and supplied and delivered the same in due course to the United States. These plates were manufactured under the inspection and supervision of officers and agents of the Ordnance Bureau, and were accepted and paid for by the Bureau as having been treated by the Harvey process.

39 XIV.

The weight of the finished plates of said armor so treated and supplied to the United States by the said Bethlehem Iron Company and the Carnegie Steel Company (Limited), for the said battle ships "Kearsarge" and "Kentucky," at the rate of royalty of one-half of 1 cent per pound for the finished plate, amounted to the sum of $60,806.45, and the said sum is now wholly due and unpaid.

The claimant has applied to the United States and the Secretary of the Navy for payment of said royalty, which has been refused, and there is now due and owing from the United States to the said claimant, under the said contract of April 12, 1893, as royalties for armor used for said battle ships "Kearsarge" and "Kentucky," the sum of $60,806.45.

XV.

It has never at any time been judicially decided that the claimant is not legally entitled, under the Letters Patent No. 460262, to own and control the exclusive right to the use and employment of the process aforesaid, and the decrementally hardened armor plates produced thereunder.

CONCLUSION OF LAW.

Upon the foregoing findings of fact the court decides, as a conclusion of law, that the claimant is entitled to recover the amount of royalty set forth in Finding XIV, to wit, the sum of sixty thousand eight hundred and six dollars and forty-five cents ($60,806.45).

BY THE COURT.

40 VI.—*Opinion of the court and the dissenting opinion. Filed May 25, 1903.*

NOTT, Ch. J., delivered the opinion of the court:

Actions founded upon patented inventions fall into three classes of cases: First, ordinary suit for infringement, which are in their nature ex delicto and of which jurisdiction is to be found exclusively in the Federal courts; second, actions on express contracts for the purchase and sale of inventions either to the full extent of the patent or for some limited user of the invention, which are as purely ex contracto as other actions for the purchase and sale of other property. Of these cases State courts have jurisdiction. Third. Actions on implied contracts for the taking

and user of an inventor's property where the circumstances were such as to imply that the defendant did not intend to do an unlawful act, and that the claimant consented to the taking. These cases have so far appeared only in suits against the Government.

This is the first patent case which has come into this court founded upon an express contract. As a number of other patent cases came before the court about the same time this, with the others, has been held for more than ordinary consideration.

All of the cases which have hitherto come before the court have been founded upon implied contracts. In such cases all defenses were open to the defendants—the Government—which are open to ordinary defendants in ordinary actions for infringement. They could set up another title, a license under another antecedent patent; they could *could* attack the validity of a patent, and show that the invention which they appropriated was not proprty; they could maintain that the device which they manufactured differed in essential particulars from the device which the inventor had protected by letters patent; they could show facts negativing a presumption to contract, such as in actions for infringement which come under the designation of "implied license." In a word, they could always treat such suits—and, in fact, their counsel always have treated such suits—as if they were actions for infringement. In the proffer of evidence and the earnestness of argument, the distinctions between actions ex delicto and actions ex contracto have repeatedly been lost sight of. It is therefore not surprising that this suit has been defended (and with great ability) precisely as have all the others which have gone before it. But the court, nevertheless, must now consider whether its duties extend further than declaring and determining the contractual rights and obligations of the parties.

In 1890 the Government, like the governments of all other countries, was unable to manufacture or procure properly hardened plates for armored vessels. It was in this dilemma: That if the plates were sufficently heavy to withstand an enemy's shots, they would sink the vessel; and if they were sufficiently light to leave the vessel a floatative, manageable marine machine, they could be penetrated or shattered by an enemy's guns. In other words, artillery was then in advance of defensive armor. Such being the case, the inventor of the Harvey process went to the Chief of Naval Ordnance and informed him that he had discovered a process whereby the ideal combination of an exceedingly hard surface with an exceedingly tough interior could be obtained. The assertion was tested by two of the severest practical tests that could be devised. Two hardened plates were procured from a manufacturer. One was retained by the Bureau of Ordnance; the other was hardened by the
41 Harvey process; both were subjected to the same artillery fire. Under this test the one plate was destroyed and the other uninjured. So far the superiority of the Harvey plate over one of approved manufacture was established, but it was wisely deemed by the Ordnance Bureau that the Harvey plate should be compared with one which was regarded in Europe as superior to all others. Accordingly, two of the then celebrated Creusot plates, made by renowned manufacturers—Schneider & Co.—were imported by the Ordnance Bureau. One was retained as before, and one was given to the claimant, and both were sub-

jected to the same artillery fire and with like results. They indicated, said the Chief of Ordnance in his report to the Secretary of the Navy, "That in this treatment has been found the means of producing the ideal armor plate—a hard front combined with a tough back, without any weld or other line of demarkation between the two." These were the facts and circumstances in the light of which the express contract of March 21, 1892, was entered into.

By this contract of March 21, 1892, it was agreed that the "Harvey process" should be used in the treatment of armor plates to be manufactured for certain designated vessels, and that a royalty at certain rates "per pound" should be paid. The manufacture of such plates went on until the royalty amounted to $96,056.46. This contract has no particular bearing upon a second contract, the contract now in suit, but it is to some extent made a part of the second contract, and its existence and the work accomplished under it are a portion of the facts and circumstances leading to the last agreement. They are adverted to to show that no purchaser in the world ever better knew, or was more completely bound to know, what he was buying than were the defendants when they entered into the contract of April 12, 1893.

This contract of April 12, 1893, recited much of what had occurred between the parties, and provided that in consideration of the payment of the amount of $96,056.46, before mentioned, the contract of March 21, 1892, should be canceled and annulled; and that the defendants, upon new terms prescribed, should have the right to use the "Harvey process" in the manufacture of armor plates for all vessels which Congress had authorized or might thereafter authorize. It also provided that the claimant should hold and save harmless and, at its own risk and expense, defend the United States from and against all and every demand "for or on account of any infringement or alleged infringement of patented rights appertaining to said process." The terms imposed upon the defendants were that they should pay "a royalty of one-half of 1 per cent per pound of the finished plate."

It was also provided by this contract that 10 per cent of the royalties to be paid should be withheld until the Harvey process "shall have been tried and found to be efficient, and, in the judgment of the Secretary of the Navy, of satisfactory value." Under this clause, and a similar one in the preceding contract, 10 per cent had been withheld. But on the 4th of December, 1893, the Chief of the Ordnance Bureau certified to the Secretary of the Navy: "The first Harvey treated plate under the said agreement having been tested, with results demonstrating the satisfactory value and efficiency of the process, and a part of the "Maine's" side armor having been set up in the shops and found to be satisfactory, there being no important irregularities due to the application of the process, it is recommended that the reservation referred to be now paid."

42 The Secretary of the Navy adopted this recommendation and paid the 10 per cent.

After all these things had happened the defendants, on the 15th of April, 1896, without rescinding the still existing contract of April 12, 1893, publicly advertised for proposals for about 6,000 tons of armor plate, to be treated by the "Harvey process." And they furthermore expressly set forth in this advertisement that: "The prices bid for armor,

treated by the Harvey process, must not include anything for royalties, as the Department has acquired the right to use said process, and will indemnify the contractor against all claims therefor."

In response to this advertisement contracts were entered into on the 1st of June, 1896, with the Bethlehem Iron Company and the Carnegie Steel Company, the advertisement being made a part of each contract. Under these contracts armor plate for two ships of war was manufactured. This armor plate was inspected and tested by officers of the Ordnance Bureau and was accepted and paid for as "armor treated by the Harvey process." The process employed was precisely the process employed in the previously manufactured armor plates, concerning which the Chief of the Bureau had certified to the "satisfactory value and efficiency of the process," and the Secretary of the Navy had paid the reserved 10 per cent. When the armor plates manufactured by the Bethlehem and Carnegie companies were completed, and delivered, and accepted, and paid for, the claimant's cause of action certainly was complete. At that time the process was as satisfactory to the Secretary of the Navy as it ever had been; no rival inventor had appeared claiming that it was an infringement of another patent; no court had decided that the patentee "was not legally entitled" to own and contract the exclusive right to the use of the process; no suit was pending on the 17th of November, 1897, when the claimant demanded payment in which the validity of the patent was in issue. The royalty was due and payable then; the defendants had no defense to interpose at that time; they can not interpose one of their own subsequent making now.

A plainer case of estoppel never came before a court. The defendants first bound the claimant's hands by a contract which secured the right to themselves to use the invention and precluded the claimant from prosecuting the manufacturers as infringers. They next closed the claimant's eyes as against the manufacturers by advertising that the plates to be made were to be treated by the "Harvey process," and that "the prices bid for armor treated by the Harvey process must not include anything for royalties, as the Department has acquired the right to use said process, and will indemnify the contractor against all claims therefor." They did not rescind the contract or give a notice which would have put the claimant on its guard or enabled it to proceed against the manufacturers, but stood silent until the work was done and they had received the fruits of their agreement. Having received every possible benefit that was assured to them by the contract, they now seek to evade its obligations. Their position is that of a man who, to avoid the dangers and costs of an action in trespass or ejectment, enters under a lease and then seeks to evade the payment of rent by assuming the attitude of a wrongdoer and denying his landlord's title.

The same principle applies to the defense that the armor plates were not manufactured according to the Harvey process, as defined and limited in the patent. The claimant had brought the process to the
43 defendants before it was patented, and they have never been able to obtain the desirable plate except by the use of the process, patented or unpatented. The variations from the patent, if any there were, were trivial—so trivial that they were not known to the manufacturers when they made the plates, or to the defendants' officers who super-

vised the making. They were not discovered by the Ordnance Bureau until after the first work was completed, but they were known to the Bureau when the last work, the work involved in the case, was contracted for as plates to be manufactured by the Harvey process and under the Harvey patent and in pursuance of the Harvey contract. The process employed did not differ from the process which had been employed for the preceding plates. If the defendants conceded that the process which had been employed was the Harvey process, as defined in and secured by the patent, they continued to concede that when, with all the knowledge which they possess now, they advertised for plates to be manufactured by the Harvey process, and therein adverted to their contract as securing them the right to manufacture under the Harvey patent. The variations from the patented process, if substantial, would have practically stricken down the patent and left the invention valueless. There was but one way in which that issue could be properly tried, and that was by an action for infringement. Instead of misleading the claimant by their advertisement and contracts with the Bethlehem and Carnegie companies, it was the plain duty of the defendants to notify both the claimant and the companies of the new attitude which they intended to assume, and leave the claimant free to fight the battle of infringement with the manufacturers.

If this agreement did not import a warrantee, it was the duty of the defendants to have investigated the scope and validity of the claimant's patent before they purchased a right to manufacture under it. But as it does contain a warrantee of a right to manufacture and use, undisturbed, it is incumbent upon them to show that they have been ousted from the purchased right by the action of some superior patentee having a higher title, or that they have been disturbed in their possession of it.

If it should be said that the invalidity of the patent or the exceedingly restricted construction which the defendants seek to place upon it constitute a failure of consideration, it must be replied that the agreement itself contains a complete refutation of that defense.

A failure of consideration is where a man does not get, in whole or in part, the thing which he has agreed to pay for. The contract in this case provided against that possibility.

After the experimental tests to which the invention had been subjected before any contract was entered into, and after all the work which had been done and accepted under the preceding contract, the second contract, being the contract in suit, expressly provides that 10 per cent of royalties which may become due shall be withheld by the defendants until "said process shall have been tried and found to be efficient, and, in the judgment of the Secretary of the Navy, of satisfactory value." By this provision the defendants made the Secretary of the Navy the exclusive judge of whether or not there might be found in the future an unforeseen partial failure of consideration; and the claimant agreed to abide by his decision. When the Secretary of the Navy, adopting the recommendation of the Chief of the Ordnance Bureau, decided that the process was "efficient" and "satisfactory," and that the 10 per cent reserved should be paid, he rendered a decision, irrevocable so far as courts are
44 concerned, that there had been no failure of consideration. That decision, made after the making of the last contract, stands

unreversed by the Secretary of the Navy, and can not be questioned by the court.

In a word, this is a case where a man without fraud or misrepresentation entered into a contract; where he received from the other party all that the contract promised him or that he expected to receive; where he kept his mouth closed when he should have spoken, and withheld a defense when he should have interposed it; where, by his silence and his words, he misled the other contracting party and thereby deprived him of his legal right to the adjudication of courts of competent jurisdiction, which adjudication might be favorable to the other party and cause irreparable loss and injury to himself. Such a man is not entitled to set up in an action on the contract the defenses which the defendants' executive officers have insisted on interposing in this case.

The court has not entered into an examination of the patent; of the construction which should be given to it; of the state of the art; or of any of those questions which would properly be subjects of consideration if this were an action for an infringement. And concerning them no opinion is expressed.

The judgment of the court is that the claimant recover from the defendants the amount of $60,806.45.

WRIGHT, J., dissenting:

The chief, if not the only, defense interposed, and to which the evidences and arguments were directed on the trial of the case, is the invalidity of the patent, and that claimant's process was not used in the treatment of armor plates made for the defendant. The findings and opinion of the majority of the court ignore such defense, except to say in the opinion that a plainer case of estoppel never came before a court, and therefore the court did not enter into an examination of the patent, nor of the construction which should be given to it, nor of the state of the prior art, concerning which no findings are made nor opinion expressed. I do not agree with the majority of the court that the defendant is estopped to insist upon the defense offered, for the reason that I believe the contract, recited in the findings, explicitly reserves the right to do so, wherein it is stipulated that in case it should at any time be judicially decided that claimant is not legally entitled under the letters patent to own and control the exclusive right to the use and employment of the process described in the patent, then the payment of royalty under the terms of the agreement shall cease. The specific decision mentioned is sought in the present case, which the court by its refusal to find the facts concerning such defense, as disclosed by the evidence, and by otherwise ignoring the same, has thus denied to the defendant the right of an adjudication upon the subject. What the result might be if the court had entered upon a consideration of the defense interposed it would be useless for one member of the court to discuss in the absence of a proper finding of the facts, which a majority of the court have refused to make, and a due consideration of the questions arising upon such finding, which a majority of the court have declined to give. Had such finding been made and due consideration given, it is my strong belief that it would appear the process described in the patent of the claimant was included in the prior state of the art, and that such process was not used in the treatment of the armor plates in question.

45 VII.—*Judgment of the court.*

THE HARVEY STEEL COMPANY
*vs.*
THE UNITED STATES. } No. 21110.

At a Court of Claims held in the city of Washington on the 25th day of May, 1903, judgment was ordered to be entered as follows:

The court, upon due consideration of the premises, find for the claimant, and do order, adjudge, and decree that the claimant, the Harvey Steel Company, have and recover of and from the United States the sum of sixty thousand eight hundred and six dollars and forty-five cents ($60,806.45).

BY THE COURT.

46 VIII.—*Application for an appeal.*

THE HARVEY STEEL COMPANY
*vs.*
THE UNITED STATES. } No. ———.

From the judgment rendered in the above-entitled cause on the 25th day of May, 1903, in favor of the claimant, the defendants, by their Attorney-General, on the 3d day July, 1903, make application for and give notice of an appeal to the Supreme Court of the United States.

LOUIS A. PRADT,
*Assistant Attorney-General.*

Filed July 3, 1903.

47 IX.—*Defendant's motion for new trial. Filed October 24, 1903.*

And now comes the United States, the defendant in the above-entitled action, by its Assistant Attorney-General, and represents to this court that in the decision and judgment of this court herein there were committed the following errors of law, as will more fully appear from the brief herewith submitted:

First. In refusing to enter into an examination of the patent and the state of the art and to construe the said patent.

Second. In holding the facts requested in the defendant's requests for findings of fact numbered 5, 6, 7, and 8, on pages 4 to 6 of the defendant's original brief herein, to be immaterial to the decision of this case.

Third. In holding the facts requested in defendant's requests for findings of fact numbered 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, and 30, on pages 6 to 10 of the defendant's original brief herein, to be immaterial to the decision of this case.

Fourth. In holding the fact requested in defendant's request for finding of fact numbered 25, on page 10 of the defendant's original brief herein, to be immaterial to the decision of this case.

Fifth. In rendering judgment for the claimant herein and in not dismissing said petition.

The defendant above mentioned further represents that there were committed in said decision and judgment herein the following errors of fact, as will more fully appear from the brief herewith submitted:

First. The court erred in inserting in Finding II the words "for such Harvey process;" also in inserting in the same finding the words "and all rights otherwise acquired for practicing, using, or producing the same."

Second. The court erred in Finding III in inserting the words "to harden by the Harvey process."

Third. The court erred in Finding IV in inserting the words "to further test the Harvey process;" and, further, in the same finding, in inserting the words "hardened by the Harvey process."

48 Fourth. The court erred in Finding V in inserting the words "as the same had been exhibited to the Navy Department."

Fifth. The court erred in Finding VII in inserting the words "treated in accordance with said Harvey process."

Sixth. The court erred in Finding IX in finding that the United States, on March 30, 1893, had utilized the Harvey process on any armor, and that the amount of royalty calculated at one-half of 1 cent per pound then amounted to $96,056.46, or any other sum.

Seventh. The court erred in Finding XII in finding that the advertisements mentioned required that 6,000 tons of armor plate should be treated "by a process of supercarburization known as the Harvey process."

Eighth. The court erred in Finding XIII in inserting the words "proceeded to manufacture and treat the plates as aforesaid," and in finding that the plates mentioned were accepted and paid for by the Bureau of Ordnance as having been treated by the Harvey process.

Wherefore, the defendant moves that a new trial in this case be granted, and that the court examine the said patent and the state of the art and construe the same and make the findings of fact, the omission of which is mentioned above as errors of law; and further, that the court amend its findings of fact in the particulars above mentioned as being errors of fact.

L. A. PRADT,
*Assistant Attorney-General.*

WM. H. BUTTON,
*Special Attorney.*

49 X.—*Order amending findings of fact. Filed February 29, 1904.*

On the defendants' motion to correct the findings of fact filed by the court May 25, 1903, it is ordered:

Finding IV. In line 5 that the words "by the Harvey process" be stricken out.

Finding V. The finding as set forth will be stricken out and the following substituted therefor: Following these tests, on the 3d day of March, 1891, at the request of the Navy Department an option was given by the claimant to the Navy Department for the purchase of the application of the Harvey process for treating armor plates, which option is recited and set forth in the contract of 21st March, 1892, set forth in Finding VI.

Finding VII. In lines 1 and 2 strike out the words "treated in accordance with said Harvey process," and in lines 4 and 5 strike out the words "which demonstrated the beneficial results of the said Harvey process."

Finding IX. Strike out the entire finding and substitute the following: On the 30th of March, 1893, the defendants, by the Secretary of the Navy, proposed a settlement between the Navy Department and the claimant, which proposal was in the words following:

"BUREAU OF ORDNANCE,
"NAVY DEPARTMENT,
"*Washington, D. C., March 30, 1893.*

"THE HARVEY STEEL COMPANY,
"*Newark, N. J.*

"SIRS: I am directed by the Secretary of the Navy to propose the following settlement of the contract question at present under discussion between the Navy Department and the Harvey Steel Company, viz:

"The contract of March 21st, 1892, between the Navy Department and the Harvey Steel Company to be annulled, the price to be paid for the cost of the treatment of armor plates by the Harvey process having been arranged for by contracts with the Bethlehem Iron Company and the Carnegie Steel Company.

A new contract to be made between the Secretary of the Navy and the Harvey Steel Company, by which the Department agrees:

1. To pay at once the sum of $96,056.46, this sum being the total royalty, at the rate of ½c. per pound, upon 8,576.47 tons of armor, the amount of armor which the Department proposes to harveyize intended for vessels, the construction of which was authorized by Congress prior to March 21st, 1892, and for which the contract of that date was made. Also for the armor of the "Iowa" and "Brooklyn," authorized since that date, and for which no contract exists.

2. To pay a royalty of ½c. per pound on all future contracts for armor to be treated by the Harvey process.

3. The Harvey Steel Company to furnish all information regarding the composition of the compound employed in the Harvey process and all information regarding its application in possession of the company. Also any improvements which the Harvey Steel Company may make in said process at any future time.

"Respectfully,

"W. T. SAMPSON,
"*Chief of Bu. Ordnance.*"

Finding XII. Strike out the first 4 lines ending with the word "concerns," so that the finding will begin, "The Congress of the United States."

At the end of the first paragraph insert: "Bids are hereby invited for supplying the following-named material:

"About 6,000 tons, more or less, of nickel-steel armor, to be of the best material and domestic manufacture, part of which, as shown by the specifications, will be required to be treated by a process of supercarbonization, known as the Harvey process."

Defendants' finding VII is refused as irrelevant and as not being sustained in essential particulars by the weight of evidence.

Defendants' requests numbered 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 are refused as irrelevant and immaterial.

BY THE COURT.

51 IX.—*Opinion of the court overruling defendants' motion for new trial, and dissent. Filed February 29, 1904.*

NOTT, Ch. J., delivered the opinion of the court:

Since the decision in this case (38 C. Cls. R., 662) the defendants have moved for a new trial upon the ground that the court erred "in refusing to enter into an examination of the patent, and the state of the art, and to construe the said patent." The court has duly considered the elaborate brief with which the motion was submitted, but remains of the opinion that the facts relied upon do not constitute a defense, and that a consideration of them is not properly admissible in an action founded, like this, upon an express contract.

The contract upon which this action is brought is something more than a naked license under a patent. It bound the claimant to disclose the "formulæ for the compounds used and employed in the application of the Harvey process;" it reserved payment in full until "said process shall have been tried and found to be efficient, and, in the judgment of the Secretary of the Navy, of satisfactory value." It required the claimant to covenant and agree "that it will hold and save harmless, and at its own risk and expense defend the United States from and against all and every demand or demands for the payment of any sum or sums of money in excess of the aforesaid sum of $96,056.46 as royalty for or on account of the use and employment of said process in the treatment of armor plates under this agreement, or of the armor plates manufactured in accordance therewith, and from and against all and every demand or demands for or on account of any infringement, or alleged infringement, of patented rights appertaining to said process or plates." It bound the claimant to "furnish full and complete information regarding the composition of the compounds employed in the Harvey process, and the application of the same." It also bound the claimant to "impart to the party of the second part all information concerning any and all improvements which said party of the first part may, at any time in the future, make in or upon said process" with the "right to adopt and use and employ any or all of such improvements in said process" "without the payment of any compensation or royalty therefor."

It is beyond question that the claimant has fully complied with all of the obligations of the contract; and it is also beyond question that the defendants have received all the benefits which they desired from the use of the process, and more than their officers expected. The defense rests upon the exceedingly narrow and technical ground that while both parties supposed they were employing the process as described in the letters patent, they, in a matter of temperature, deviated from the strict letter of its description. The court is by no means satisfied, as a matter of fact, that there was such a deviation; but whether there was or not it

was unquestionably trivial. The process intended to be described in the patent and supposed to be described in the patent was employed and the results, as before stated, were all that the defendants' officers desired and more than they expected.

In the opinion of the court, the contract entitled the defendants to a disclosure of the inventor's process, to his instructions and assistance in the practical application of the patent, and to use the process little or much, in whole or in part.

Apart from the question of estoppel the defendants, in the opinion of the court, have received all that they bargained for and are not entitled to set up their deviations, if any, from the specifications of the patent as a defense.

Moreover, the defendants still hold, under the same contract, the claimant's obligation to impart to them "all information concerning any and all improvements which said party of the first part may at any time in the future make in or upon said process," and "the right to adopt and use and employ any or all of such improvements in said process" "without the payment of any compensation or royalty therefor."

If a man should hire a horse of another at so much a day, and having ridden it as much as he pleased should refuse to pay anything on the ground that he had not used it a day, but only nine-tenths of a day, there is no court that would for a moment listen to such a defense. The Government's defense in this case is not so plain as in the one supposed, but it is of the same character.

The defendants' motion for a new trial is overruled.

WRIGHT, J., dissented for the reasons given in his opinion 38 C. Cls. R., 668.

HOWRY, J., did not sit in this case.

52 XII.—*Allowance of the appeal of the defendants.*

THE HARVEY STEEL COMPANY
vs.
THE UNITED STATES. } No. 21110.

At a Court of Claims held May 16, 1904, Mr. Assistant Attorney-General Pradt for the defendants presented an application for the allowance of appeal filed July 3, 1903, and it was ordered that it be allowed as prayed for.

BY THE COURT.

53 In the Court of Claims.

THE HARVEY STEEL COMPANY
vs.
THE UNITED STATES. } No. 21110.

I, John Randolph, assistant clerk of the Court of Claims, certify that the foregoing are true transcripts of the pleadings in the above-entitled cause, of the findings of fact and conclusion of law filed by the court, of the opinion of the court and the dissenting opinion, of the judgment

of the court, of the motion of the defendants for a new trial, and of the opinion of the court overruling said motion, of the application for and allowance of appeal to the Supreme Court of the United States.

In testimony whereof I have hereunto set my hand and affixed the seal of said Court of Claims this 23d day of May, A. D. 1904.

[SEAL.]

JOHN RANDOLPH,
*Asst. Clerk Court of Claims.*

(Indorsement on cover:) File No. 19373. Court of Claims. Term No. 275. The United States, appellant, vs. The Harvey Steel Company. Filed May 25, 1904. File No. 19373.

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# STIPULATION AND ADDITION TO RECORD.

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1904.

No. 275.

THE UNITED STATES, APPELLANT,

vs.

THE HARVEY STEEL COMPANY.

APPEAL FROM THE COURT OF CLAIMS.

RECORD FILED MAY 23, 1904.

ADDITION FILED OCTOBER 10, 1904.

(19373.)

# SUPREME COURT OF THE UNITED STATES.

## OCTOBER TERM, 1904.

## No. 275.

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THE UNITED STATES APPELLANT,

vs.

THE HARVEY STEEL COMPANY.

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APPEAL FROM THE COURT OF CLAIMS.

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8665—04

1 In the Court of Claims.

THE HARVEY STEEL COMPANY
*v.*
THE UNITED STATES. } No. 21110.

*Stipulation of parties, filed August 2, 1904.*

It is hereby stipulated between the parties hereto that the requests for findings of fact made by the defendant in the Court of Claims, Nos. 7 and Nos. 11–30, both inclusive, which requests are referred to in the order of the Court of Claims, filed on February 29, 1904, amending findings of facts herein, and which requests through inadvertence were not incorporated in the printed transcript of record herein, be sent to the Supreme Court as a part of said transcript, a copy of said requests to be certified by the clerk of the Court of Claims to the Supreme Court as an additional transcript, and to be considered part of the transcript of record herein.

Dated, Washington, D. C., July 28, 1904.

UNITED STATES, *Appellant*,
By LOUIS A. PRADT, *Assistant Attorney-General*,
B.
HARVEY STEEL COMPANY,
By BOARDMAN, PLATT & SOLEY, *Attorneys*.

Order allowed.
[SEAL.] C. C. NOTT, *Chief Justice*.
August 5, 1904.

2 Court of Claims.

HARVEY STEEL COMPANY
*vs.*
THE UNITED STATES. } No. 21110.

No. 7 and Nos. 11 to 30, inclusive, of defendant's requests for findings of fact, filed December 20, 1902, in the above-entitled cause, as covered by the foregoing stipulation, to wit:

7. The said plates were treated in the following manner: The plates were manufactured of suitable dimensions and were of low steel—that is, of steel containing a comparatively small percentage of carbon. After such plates were manufactured, said plates were packed between a mass of carbonaceous material on the side intended to receive the impact of projectiles and a mass of noncarbonaceous material on the other side, within a heating chamber in a furnace. The furnace was then fired up and the heating chamber was maintained for a period of several days at a heat which was ordinarily above the actual melting point of some varieties of cast iron, after which the plates were allowed to cool and were removed from the furnace. The plates were then reforged, whereby they were rendered thinner and more compact. After the reforging the plates were again heated to about 1,350° F. and were "chilled" or "quenched" by spraying them with jets of cold water.

11. The essential features of the process described in United States patent 460262 and in Claim I of that patent are as follows:

1. Operating on a low steel plate.

2. Packing carbonaceous material on one side of the plate and noncarbonaceous material on the other.

3. Subjecting the plate so packed to a high heat.

4. Hardening the plate while it is cooling off after its subjection to said high temperature by spraying it with cold water.

3 12. There was neither novelty nor invention in any one of said steps, nor in the combination of them, at the time Mr. Harvey applied for patent 460262, nor at the time he claimed to have made the invention covered by said patent, unless the high heat mentioned in subdivision 3 of finding 11 was a heat above 3,100° F. If said patent prescribes the use of such heat, there was novelty and invention in that one step and in no other.

13. The melting point of cast iron is now known to vary from 1,880° F. to 2,282° F., according to variety.

14. The fact mentioned in finding 13 was not established until several years after United States patent 460262 was granted. At the time said patent was granted many authorities well recognized in the metallurgy of iron and steel maintained that the melting point of cast iron was sometimes as high as 2,920° F. A person skilled in the art at that time would have been perfectly justified in holding to said opinion.

15. For hundreds of years prior to the application for patent 460262 it was common knowledge in the art that iron or low steel would take up carbon if heated in contact with carbonaceous material. Such operations at various temperatures had been of the most common occurrence for at least a hundred years prior to said application, and the articles being carburized were often heated to 2,400° F., and even higher. Such facts were also frequently set forth in patents and publications.

16. For a long period prior to said application it was common knowledge in the art that parts of the material operated on could be protected from the carbon by packing noncarbonaceous material over such parts, and it had very commonly been practiced and described in patents and publications, and these descriptions show such an arrangement of the materials that of necessity the carbon was firmly pressed against the iron or steel.

17. The fact that the carbon penetrated gradually from the surface inward was a matter of common knowledge in the art for many years prior to said application, and such was always the result of such operations. This condition was always produced in the operation and mentioned, and it had been repeatedly observed, commented upon, and established by chemical analyses, and had been described in many patents and publications long prior to said application.

4 18. Knowledge of the fact that steel containing as much carbon as the carburized faces of the plates furnished for the "Kearsarge" and "Kentucky" could be hardened by quenching with cold water or otherwise was common for hundreds of years prior to the application for patent 460262. Such operations had been commonly practiced and described in publications and patents for many years.

19. Such processes of carburization had been commonly applied to iron and steel, and the product had been subsequently hardened by quenching. The articles operated upon were of various sizes and shapes. Carburization of steel masses by these methods had frequently extended to the depth of an inch or an inch and a half below the surface, and in that depth the diminution of carbon had been gradual from the surface inward, and such condition had been observed and described, and its desirability fully realized and described in publications and patents. Such products had been hardened by quenching as a common practice.

20. From 1870 to 1887, and later mint rolls were manufactured in Pittsburg, Pa., by the same process, in all its details, that was applied to the plates furnished for the "Kearsarge" and "Kentucky." The carburization extended three-fourths of an inch inward, and the decrease was gradual. The surface of the finished roll was glass hard, and the hardness gradually decreased from the surface inward. All the practice and results were of common knowledge, at that place and time, to those engaged in the art. The desirability of such carburization and hardening for withstanding the strains to which said rolls were to be subjected was well understood.

21. Hammer dies for use in steam hammers were manufactured with the same characteristics at the same place during the same time by the same process, and the carburization extended gradually to at least 1 inch below the surface. All these facts and the desirability of such conditions were fully known.

22. Large plates with the same characteristics as the mint rolls and hammer dies could have been made by the same process at the same place during the same time.

23. The process of carburizing and hardening applied to the plates for the "Kearsarge" and "Kentucky" was fully described in the British patent to Spencer, No. 4866 of 1879. That patent gave persons skilled in the art sufficient information to enable them to produce such armor plates.

24. The desirability of supercarburizing and hardening armor plates had been repeatedly suggested and advocated in various patents and publications prior to the Harvey patent, and the manner in which it could be accomplished was well known to those skilled in the art. Such process would have been the same as that applied to the plates for the "Kearsarge" and "Kentucky."

25. In considering the prior state of the art the following patents and publications were considered:

(Insert list of them.)

26. The melting point of copper is above the melting point of the more fusible kinds of cast iron.

27. The melting point of wrought iron is about 2,687° F.

28. In all carburizing operations the depth of carburization depends on the duration and degree of heat used. If either is increased, the carburization is extended, and if the degree be raised, it is hastened.

29. There was no novelty nor invention in the use of any particular carbonaceous material employed on the plates for the "Kearsarge" or the "Kentucky."

30. The temperature of an article being carburized within an air-tight case is much lower than the temperature of the heating chamber surrounding the case.

* * * * * * *

WILLIAM H. BUTTON,
*Special Attorney.*

Filed December 20, 1902.
A true copy: Test. This 11th day of August, 1904.
[SEAL.] JOHN RANDOLPH,
*Asst. Clerk Court of Claims.*

6 Court of Claims.

HARVEY STEEL COMPANY
*vs.*
UNITED STATES. } No. 21110.

I, John Randolph, assistant clerk of the Court of Claims, hereby certify that the foregoing are true transcripts from the records filed in this court in the above-entitled cause, and that the same are certified by the order of said court to the Supreme Court of the United States as an additional transcript, and to be considered part of the transcript of record on appeal certified to said court May 23, 1904.

In testimony whereof I have hereunto set my hand and affixed the seal of said Court of Claims this 12th day of August, 1904.

[SEAL.] JOHN RANDOLPH,
*Asst. Clerk Court of Claims.*

7 Supreme Court of the United States, October term, 1904.

THE UNITED STATES, APPELLANT,
*vs.*
THE HARVEY STEEL COMPANY. } No. 275.

*Stipulation.*

It is hereby stipulated by counsel for the parties to the above-entitled cause that the foregoing additional transcript of the record therein, certified by the clerk of the Court of Claims, may be added to and constitute a part of the record on appeal to the Supreme Court of the United States.

HENRY M. HOYT,
*Solicitor-General.*

JAS. RUSSELL SOLEY,
*Counsel for Appellee.*

August 30, 1904.

(Indorsement on cover:) File No., 19373. Supreme Court of the United States. October term, 1904. Term No., 275. The United States, appellant, vs. The Harvey Steel Company. Stipulation of counsel and addition to record. Filed October 13th, 1904. File No., 19373.

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# United States Supreme Court.

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HARVEY STEEL COMPANY,
*Plaintiff-Appellee,*

*vs.*

UNITED STATES,
*Defendant-Appellant.*

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**APPEAL FROM THE COURT OF CLAIMS.**

**MOTION TO ADVANCE.**

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*For the United States.*

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C. G. Burgoyne, Walker and Centre Streets, N. Y.

# UNITED STATES SUPREME COURT.

HARVEY STEEL COMPANY,
Plaintiff-Appellee,

v.

UNITED STATES,
Defendant-Appellant.

**Appeal from the Court of Claims.**

And now comes the appellant and moves the Court to advance the above entitled cause for hearing on a date at the next term, as early as may be convenient and proper under the rules of the Court.

In support of said motion it is respectfully shown:

The suit is one in which the United States is the sole party defendant, and involves or affects a matter of general public interest, and the obligations of the Government under a number of contracts for the supply of armor for vessels of war.

The appeal herein is from a judgment of the Court of Claims in favor of the Harvey Steel Company for the sum of $60,806.45 for the royalty due under a written contract between the Harvey Steel Company and the United States, dated April 12, 1893, which licensed the Government to use the Harvey process of manufacturing face-hardened armor, and provided for the payment of royalty at the rate of one-half of one cent per pound for the finished plates delivered to the Government. The amount of royalty involved in this suit was that due on the armor for the battleships

" Kearsarge " and " Kentucky ", which were supplied with such armor in 1896.

Since that time a number of other battleships have been equipped with the same kind of armor. Another suit is now pending in the Court of Claims for such subsequent royalties.

A number of other vessels are contemplated and are expected to be supplied with the same kind of armor, and an ultimate decision in the present case is therefore highly desirable not only to determine the liability in the present case, but as a precedent for the action of the Government on the question of royalties on armor for all ships subsequent in date to the " Kearsarge " and " Kentucky."

If the hearing of this cause is not advanced, a large amount of testimony will have to be taken in the subsequent suit or suits, and the parties will be put to an unnecessary and burdensome expense.

Leave is therefore asked to have the case advanced for hearing out of its order on the calendar.

Henry M. Hoyt,

Solicitor General.

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I concur in the above application.

Frederic H. Betts,

Of Counsel for the Appellee.

# In the Supreme Court of the United States.

OCTOBER TERM, 1904.

THE UNITED STATES, APPELLANT,
*v.*
THE HARVEY STEEL COMPANY. } No. 275.

*APPEAL FROM THE COURT OF CLAIMS.*

## BRIEF FOR THE UNITED STATES.

### STATEMENT.

This action was brought in the Court of Claims to recover royalties alleged by the claimant to be due under a contract made between the claimant and the United States, through the Secretary of the Navy, for use of the so called "Harvey process" for the treatment of armor plates for war vessels. The process had been patented in the United States on the 29th of September, 1891, by Harvey, and assigned by him to the claimant prior to the making of this contract. The circumstances leading up to and surrounding the contract are as follows, as shown by the findings of fact:

In 1890, before the Harvey process was patented, the claimant exhibited to the Chief of the Bureau of

Ordnance of the Navy Department an armor plate, and informed him that it had been treated by a process discovered by Harvey, and was superior to all other armor plates then known. Thereafter the Chief of the Bureau of Ordnance subjected armor plates which had been treated by the claimant, in comparison with other plates from well-known manufacturers, to various ballistic tests, and the results indicated that armor plates which had been treated by claimant were greatly superior to any other known plates, and that the probable result of such treatment was the production of an ideal armor plate, a hard front combined with a tough back, without any weld or other line of demarcation between the two. Following these tests, at the request of the Navy Department, an option was given by the claimant to the Navy Department on the 3d day of March, 1891, for the purchase of the application of the Harvey process for treating armor plates. This option was accepted by the Navy Department, and provided for the payment by the United States of a sum not to exceed $75,000 as royalty for the use of the process if found of value after further tests, and that the Navy Department was to have the right to use the process, should it so desire, without further compensation upon armor plates of vessels the construction of which was authorized by Congress at that date, but that in the event of the authorization by Congress of the construction of other vessels of war, a new contract for the further application of the Harvey process of treating armor plates was to be made be-

tween the parties, if the Navy Department should so desire. It also contained the following provision:

> It is understood that the Navy Department will undertake to bear all the expense of the experimental development of the process as applied to armor plates, our Mr. Harvey to furnish, in consultation with the Bureau of Ordnance, all details at present in his possession in regard to the process or which he may personally develop in the perfection of his methods of treatment as applied to armor-plating.

Thereafter, on the 21st day of March, 1892, a contract was entered into between the claimant and the Secretary of the Navy, reciting that the claimant was the owner of the patent for the Harvey process; that the parties had agreed to use armor plate treated by this process upon certain naval vessels of the United States; that the option above referred to had been given to the Navy Department by the Harvey Steel Company and accepted by that Department. The contract thereupon provided for the use by the United States in the treatment of armor plates for the naval vessels named in the contract of the process known as the "Harvey process," and in consideration therefor, for the payment to the claimant of nine-tenths of 1 cent per pound of such armor plates to cover cost of treatment and royalty. Thereafter additional trial armor plates were subjected to numerous experimental tests by claimant and the Navy Department, and on the 8th day of October, 1892, the

claimant was notified that the Harvey process was definitely adopted by the Navy Department.

On the 18th of February, 1893, and on March 14, 1893, the United States, pursuant to the contract of March 21, 1892, required the claimant and its Mr. Harvey to give to the Navy Department its secret process and improvements, which was done. On the 30th of March, 1893, the Secretary of the Navy proposed to the claimant, by letter, that the contract of March 21, 1892, be annulled, the price to be paid for the cost of treatment of armor plates by the Harvey process having been arranged for by contracts with the Bethlehem Iron Company and the Carnegie Steel Company, and that a new contract be made between the parties, by which the United States should agree to pay the sum of $96,056.46 total royalty for the armor which the Department proposed to Harveyize for the vessels named in the contract of March 21, 1892, and also for the *Iowa* and *Brooklyn*, not therein named, and to pay a royalty of one-half of 1 cent per pound on all future contracts for armor to be treated by the Harvey process, the claimant to furnish all information regarding the composition of the compound employed in the Harvey process and all information regarding its application in possession of the company, also any improvements which the Harvey Steel Company might make in said process at any future time. Thereafter, on the 12th day of April, 1893, the claimant and the Navy Department entered upon the contract which is the basis of this action. This contract,

after reciting that the claimant was the owner of the patented rights in and to the Harvey process, referring to the letters patent thereon, proceeded to provide for the use of said process by the United States on the terms contained in the proposal of the Secretary of the Navy above referred to, and to warrant the same, and contained also the following provision:

> In case it should at any time be judicially decided that the party of the first part is not legally entitled, under the letters patent aforesaid, to own and control the exclusive right to the use and employment of said process and the decrementally hardened armor plate produced thereunder, as set forth in letters patent aforesaid, then the payment of royalty under the terms of this agreement shall cease, and all sums of money due the party of the first part from the party of the second part as royalty for the use and employment of said process and armor plates as aforesaid shall become the property of the party of the second part.

On the same day that this contract was entered into the United States paid to the claimant the said sum of $96,056.46 royalties under the prior contract, less 10 per cent reserved pursuant to the final contract, until the Navy Department should be satisfied upon receipt of the formulæ for the compounds used and employed in the application of the Harvey process and the trial of the same, that the process was efficient and valuable, and afterwards, on December 7, 1893, this 10 per cent reserve was, pursuant to such provision, paid to claimant.

On the 15th of April, 1896, the Secretary of the Navy advertised, inviting proposals for the supply of nickel-steel armor-plates for the battle ships *Kearsarge* and *Kentucky*, and in the advertisement required of bidders that the said armor plates should be "treated by a process of super carburization, known as the Harvey process." The advertisement also notified bidders that:

> The prices paid for armor treated by the Harvey process must not include anything for royalties, as the Department has acquired the right to use said process and will indemnify the contractors against all claims thereof.

On the 1st day of June, 1896, the Secretary of the Navy entered into two separate contracts with the Bethlehem Iron Company and the Carnegie Steel Company, in which those companies agreed to furnish in certain proportions the armor described in the said advertisement, including therein the "Harveyed" armor, and in compliance therewith they proceeded to manufacture and treat the armor plate, and supplied and delivered the same to the United States. These plates were manufactured under the inspection and supervision of officers and agents of the Ordnance Bureau, and were accepted and paid for by the Bureau as having been treated by the Harvey process. The rate of royalty of one-half of 1 cent per pound on the plates of armor so treated and supplied to the United States amounted to the sum of $60,806.45, for the payment of which the claimant made demand upon the Navy Department, which was refused.

The court also found that it had never been judicially decided that the claimant is not legally entitled, under the letters patent for the Harvey process, No. 460262, to own and control the exclusive right to the use and employment of the process aforesaid and decrementally hardened armor plate produced thereunder.

In addition to the findings of fact made by the court, the United States requested the court to also find certain other facts, considering the same material and proven by the evidence in the case. Such requested facts consisted, in substance, of a description of the manner in which the armor plates upon which royalty was claimed in the action had been treated, namely: That plates of low steel—that is, steel containing a comparatively small percentage of carbon—were packed between a mass of carbonaceous material on the side intended to receive the impact of projectiles, and a mass of noncarbonaceous material on the other side, within a heated chamber in a furnace; that the furnace was then fired up and the heating chamber was maintained for a period of several days at a heat which was ordinarily above the actual melting point of some varieties of cast-iron, after which the plates were allowed to cool and were removed from the furnace; that the plates were then reforged, whereby they were rendered thinner and more compact; that after the reforging the plates were again heated to about 1,350° Fahrenheit, and were chilled or quenched by spraying them with jets of cold water; that the essential features of the process

described in the patent relied on by claimant were (1) operating on a low steel plate; (2) packing carbonaceous material on one side of the plate and non-carbonaceous material on the other; (3) subjecting the plate so packed to a high heat; (4) hardening the plate while it was cooling off after its subjection to said high temperature by spraying it with cold water; that there was neither novelty nor invention in any one of said steps, nor a combination of them, at the time said patent was applied for nor at the time the patentee claimed to have made the invention covered by said patent, unless the high heat mentioned in the patent was a heat above 3,100° Fahrenheit; that if said patent prescribed the use of such heat, there was novelty and invention in that one step and in no other; that the melting point of cast iron was now known to vary from 1,880° to 2,280° Fahrenheit, according to variety, but that this fact was not established until several years after the said patent was granted, but at the time said patent was granted many authorities well recognized in the metallurgy of iron and steel maintained that the melting point of cast iron was sometimes as high as 2,920° Fahrenheit; that a person skilled in the art at that time would have been perfectly justified in holding to said opinion; that for a long period prior to the application for the Harvey patent, the following facts were commonly known to the art: That iron or low steel would take up carbon if heated in contact with carbonaceous material; that parts of

the material thus operated on could be protected from the carbon by packing noncarbonaceous material over the same; that the carbon penetrated gradually from the surface inward, and such was always the result of such operations; that steel containing as much carbon as the carburized faces of the armor plates in question could be hardened by quenching with cold water or otherwise; that all these facts had been frequently set forth and described in many patents and publications long prior to said application; that such processes of carburization had been commonly applied to iron and steel and the product subsequently hardened by quenching, with the result of gradual carburization from the surface inward, in some cases extending to the depth of an inch or an inch and a half below the surface; that various articles had been thus treated long prior to said application; that large plates with the same characteristics as such articles could have been made by the same process at the same place and during the same time; that the process of carburizing and hardening the armor plates in question was fully described in a British patent in 1879, which patent gave persons skilled in the art sufficient information to enable them to produce such armor plates; that the desirability of supercarburizing and hardening armor plates had been repeatedly suggested and advocated in various patents and publications prior to the Harvey patent, and the manner in which it could be accomplished was well known to those skilled in the art; that there is no nov-

elty or invention in the use of any particular carbonaceous material employed on the armor plates in question. (Additional record, pp. 1–3.)

The Court of Claims refused to make the findings thus requested.

Judgment was rendered by the court in favor of the claimant for the sum of $60,806.45. From that judgment this appeal was taken.

## ASSIGNMENT OF ERRORS.

1. The court erred in refusing to make the findings of fact requested by the United States, set forth in the additional record on pages 1, 2, 3, and 4.

2. The court erred in holding that the United States was estopped from disputing the validity of the Harvey patent, and that such issue could be properly tried only in an action for infringement.

3. The court erred in holding that the United States was estopped from setting up the defense that the armor plates in controversy were not manufactured according to the Harvey process, as defined and limited in the patent.

4. The court erred in rendering judgment for the claimant.

## ARGUMENT.

This action is based on a contract between the claimant and the United States, in which the United States agreed to pay the claimant a specified royalty for the use of a process for hardening the face of armor plates for war vessels, described in the contract as a patented

process known as the "Harvey process," with special reference to letters-patent thereon, and reciting that the claimant was the owner of "all and singular the patent rights" thereon. The contract contained the specific agreement that—

> In case it should at any time be judicially decided that the party of the first part [the claimant] is not legally entitled, under the letters-patent aforesaid, to own and control the exclusive right to the use and employment of said process and the decrementally hardened armor plates produced thereunder, as set forth in the letters-patent aforesaid, then the payment of royalty under the terms of this agreement shall cease, and all sums of money due the party of the first part from the party of the second part as royalty for the use and employment of said process and armor plates as aforesaid, shall become the property of the party of the second part.

The claim arose through the action of the Secretary of the Navy in refusing to pay royalties amounting to over $60,000, which the claimant demanded as having accrued under the contract, for use of the Harvey process in the treatment of armor plates manufactured at the instance of the United States for two of its battle ships.

As a defense to the action, the United States introduced evidence which, it insisted, tended to show, and in fact established, that the Harvey process, which the claimant, in the contract relied upon, had described as and represented to be a patented process, was in effect

not a patented process, because the patent therefor owned by the claimant was invalid or, if valid at all, was so within certain narrow limits, and as thus restricted the process had not been used at all by it. Upon this evidence the United States asked the court to make the findings of fact to that effect detailed in the statement of the case herein.

The Court of Claims refused to make the findings thus requested by the United States or any other determination of the issue thus raised, or to make any examination of the evidence offered in support thereof, and there being no other defense interposed, judgment was entered for the claimant.

One member of the court, however, dissented, and announced in his dissenting opinion, in substance, that the findings asked for by the United States, in relation to the defense interposed by it, were supported by the evidence.

**Basis of the decision of the Court of Claims.**

The Court of Claims applied to the defense interposed by the United States an estoppel *in pais* in the following language:

> A plainer case of estoppel never came before a court. The defendants first bound the claimant's hands by a contract which secured the right to themselves to use the invention and precluded the claimant from prosecuting the manufacturers as infringers. They next closed the claimant's eyes as against the manufacturers by advertising that the plates to be made were

> to be treated by the "Harvey process," and that "the prices bid for armor treated by the Harvey process must not include anything for royalties, as the Department has acquired the right to use said process, and will indemnify the contractor against all claims therefor." They did not rescind the contract or give a notice which would have put the claimant on its guard or enabled it to proceed against the manufacturers, but stood silent until the work was done and they had received the fruits of their agreement. Having received every possible benefit that was assured to them by the contract, they now seek to evade its obligations. (Majority opinion of the court, record, p. 30.)

But in thus holding the court ignored the fact that the contract called for the furnishing by the claimant to the United States of a *patented* process; that the claimant not only warranted the validity of this patent, but entered into an express agreement that there should be no liability on the part of the United States for unpaid royalties accruing under the contract or for any further use of the process in the event that the patent should be judicially declared to be invalid. It thus appears that the essence of the consideration for the agreement in the contract on the part of the United States to pay royalties to claimant for the use of its process was the fact, as represented by the claimant, that such process was a patented one, and the irresistible conclusion is that no such contract would have been entered into by the United States at the time had it not accepted as true the claimant's representation

that the process was a patented one. Yet the court absolutely ignores this vital fact in the case, and proceeds to apply the doctrine of estoppel to the United States precisely as though the process which is the subject of the contract had never been patented.

Thus the court found it comparatively easy to construct an estoppel against the United States out of the various facts and circumstances connected with the tests by the United States of armor plates which the claimant had treated by its process prior to the making of the final contract with the claimant and the acceptance by the United States, subsequent to this contract, from the Bethlehem and Carnegie companies of armor plates treated by said process, having eliminated from all relation to those facts this controlling and preeminent fact: that the whole contract turned absolutely upon the claimant's warranty therein of the patent upon its process. But whilst the facts thus edited might estop the United States from thereafter denying that it had approved the Harvey process, or at any rate from rejecting satisfactory plates that had been treated by the Harvey process, how can it be contended that such acts and declarations on the part of the United States also estop it from denying the validity of the patent? In this connection it will be found instructive to compare the two contracts between the claimant and the United States. In the first contract there was no provision made in regard to the invalidity of the patent. It may, indeed, properly be termed a preliminary and experimental contract, made

in order that the United States might establish to its entire satisfaction the value of the Harvey process. At its termination, and at the time of the making of the last contract, there was due under it to the claimant, for use of the process, $96,000. As to this indebtedness the United States might have been estopped to set up the defense of invalidity of the patent, for there is nothing in the first contract to indicate that the validity of the patent was in any way taken into consideration therein. But when the final contract was made the situation was very different. The Navy Department, through its experts, had by that time demonstrated that armor plates treated by the Harvey process were in every respect satisfactory, and the time had now arrived for the making of a permanent contract between the parties. Then it was that explicit provision was made with respect to the validity of the patent for the Harvey process. The propriety of this provision is manifest. Indeed, it would seem to have been a plain violation of official duty on the part of the Secretary of the Navy to have left out of the contract this important provision or to have entered into any agreement with the claimant to pay royalty for use by it of this process, without any reference to its validity as a patented invention. By way of illustration, suppose that at this particular time the Secretary of the Navy had received information of the evidence which was offered by the United States at the trial of this action tending to show the invalidity of the patent, and had reached the conclusion that the patent was

invalid, would he have been warranted in entering into any further agreement of any sort with the claimant to pay royalty for the use of the process, and would he not have been fully justified in proceeding to use the process as the common property of the public?

But here we are met by the statement of the court that under the contract the claimant not only licensed the United States to use its patented process, but also bound the claimant to disclose the formulæ for the compounds used and employed in the application of the Harvey process, and to save the United States harmless from any demands of others alleging infringement of patent rights claimed by them in the said process; that it bound the claimant to furnish full and complete information regarding the composition of the compounds employed in the Harvey process and the application of the same, and also to impart to the United States all information concerning any and all improvements that said party of the first part may at any time in the future make in or upon said process, with the right to adopt and use and employ any or all such improvements in said process without the payment of any compensation therefor—all of which the claimant, so far as it had been called upon, had fully complied with. (Second majority opinion of the court, record, p. 36.) Along the same line it is contended, on behalf of the claimant, that by the Harvey process the making of armor plates was revolutionized, and the United States received great benefit by the use of the process; and upon all these

considerations it is urged that for the United States to attempt in any way to escape liability for the payment of royalty for the claimant's process is in every sense bad faith. In fact, the contention of the claimant and the reasoning of the Court of Claims amount to this, that after the making of the contract of April 12, 1893, the United States was bound, not only legally, but upon every consideration of fairness and justness, to pay to the claimant the stipulated royalty for all armor plate used by it that has been subjected to the Harvey process.

A complete answer to this is to be found in the fact that the value of the Harvey process was demonstrated and made known to the world through the efforts and at the expense of the United States. Before the claimant had received his patent he brought his process to the attention of the United States, in order that such tests and demonstration might be made. This was undoubtedly done for two reasons: First, because no private party could possibly have the means of subjecting armor plate to the necessary ballistic tests. Only the United States possessed the artillery and proving grounds and facilities for so doing. The other reason is that the Government was the only possible customer to use the process within the United States. As a result of the tests and experiments made by the United States prior to the final contract the claimant was enabled to present to foreign governments complete proof of the value of the Harvey process, coupled with the most potent fact that it

had been adopted by the United States. Furthermore, the claimant received from the United States for such services as it may have rendered to the United States during this time, with relation to the application of its process to armor plates belonging to the United States, and for such disclosures as may have been made by it relative to its formulæ for the compound used in the application of the process, the substantial sum of $96,000.

Thus at the time of the making of its final contract with the United States, the claimant had had the process tested and its value demonstrated, without expense to itself and in the only way those tests and that demonstration could possibly be made, and was in position to enter into contracts for the use of its process by foreign governments, which contracts it is a matter of common knowledge it did enter into, and it had received as compensation for the use of its process $96,000.

With respect to the various obligations entered into by the claimant recited in the second opinion of the court, it would seem sufficient to say that these obligations are merely incidental to the vital contract obligation of the claimant to furnish to the United States a warranted patented invention as the subject of the payment of royalties by the United States. It was for the use of this patented process that the United States agreed to pay those royalties, and not on account of these incidental obligations; and so the fact that such incidental obligations were carried out by the claimant

can not be offered as consideration for the payment of such royalties after the main obligation has ceased by reason of the invalidity of the patent.

**No estoppel as licensee.**

Another ground of estoppel which was urged by the claimant against the defense, but to which no special reference is made in the opinion of the court, is the proposition that a licensee can not set up invalidity of a patent as a defense to a suit for royalties brought by the licensor. While this contention is true as a general proposition, it has no proper application to the present case. The reason for the application of this doctrine of estoppel is that as a rule a licensee of a patented invention enjoys a practical monopoly, so that it is a matter of indifference to him whether the monopoly is secured by a patent which is valid or invalid. This reason lies so largely at the foundation of the principle, that where a patent has been successfully defied by various persons to such an extent as to do away with a monopoly, such circumstances are held to amount to an eviction. (Walker on Patents, 3d ed., sec. 307.) But no such situation obtained in the present instance. The contract between the claimant and the United States neither created any such monoply nor was intended to do so.

In addition to this it is insisted by the United States that by the provision in the contract providing for the contingency of a judicial determination of the invalidity of the patent there was expressly reserved to the United States the right to dispute the validity of the

patent. But here the claimant contends, and the court in its opinion intimates that this provision had relation only to such determination in an action for infringement. But where and how such action of infringement shall be brought is not specified, and would seem to be in great obscurity. It could not be brought against the United States directly, and the Court of Claims says in its opinion that the United States had bound claimant's hands by a contract which secured to itself the right to use the invention and precluded the claimant from prosecuting the manufacturers as infringers. Hence as there was no possibility that there would be any manufacture of armor-plates within the United States except for the United States, it would seem that no such action for infringement would ever be brought. But whether thus precluded or not there was absolutely no incentive for the bringing of any such action by the claimant. For, consider the situation. By its contract with the claimant the United States had bound itself to pay royalty for all armor-plate which it should cause to be manufactured, and treated by the Harvey process. Next the United States entered into contracts with parties other than the claimant for the manufacture of a large amount of armor plates to be treated by this process, and these contracts would, of course, in due time be followed by others. Thus was created a source of great and increasing revenue to the claimant, involving no action on its part other than to collect and receive its royalties from the United States. And this gratifying con-

dition of affairs, according to the contention of the claimant and the reasoning of the court, could never be disturbed by any act of the United States, but only by an action of infringement brought against the parties manufacturing this armor for the United States. But the claimant would have absolutely nothing to gain and everything to lose in bringing such an action, for, if successful, an injunction against the use of its process would simply result in stopping the revenue which it had been receiving from the United States as the result of such use, while an agreement by the defendant in such action to pay royalty for the use of the process would be merely another way of establishing a condition already existing in favor of the claimant. On the other hand, if the defendant in such action succeeded in establishing the invalidity of the patent, the obligation of the United States to pay royalty to the claimant would cease for that reason.

The practical result, then, of this contention that the United States is estopped to deny the validity of the patent for the Harvey process is to nullify the provision of the contract by which the United States was to be absolved from liability under the contract in case the patent should be judicially declared invalid. On the other hand, the contention of the United States imparts to this provision a manifest reason and purpose, which is that the United States might at any time, acting upon information which seemed to warrant such action, bring the question of the validity of the

patent to the test of a judicial determination by refusing to pay accrued and unpaid royalties under the contract, on the ground that the patent was invalid. This was exactly the course pursued by the Secretary of the Navy in this case. The result was the bringing of this action in the Court of Claims. As a defense to that action, the United States urged the reason which had actuated the Secretary of the Navy to refuse to pay royalties to the claimant under the contract, namely, the invalidity of the patent. Thus the question provided for in the contract was brought squarely in issue, and if the Court of Claims had determined that question, and upon the evidence which the United States insists was amply sufficient therefor, had found that the patent was invalid, not only would the liability of the United States for the payment of royalty under the contract be at an end, but the unpaid royalty, which was the subject of this action, would by the same provision become the property of the United States, and hence its liability to pay the same to the claimant would also be at an end.

Nor is this contention that, under the contract, the validity of the patent for the Harvey process could only be brought in question in an action for infringement sound, for the following reasons:

The market for armor plate is limited to governments which maintain naval establishments. The contract with the United States did not grant any exclusive rights. Despite those contracts, the claimant was at perfect liberty to contract with other governments

and other consumers for the use of the process, and in fact did so contract. If the patent is valid, those contracts would be protected and no one else could manufacture armor plate for such government. If, on the other hand, the patent is not valid, then either the claimant or anyone else would be at liberty to make such contracts with other governments and fill them. In either event the result, so far as the United States is concerned, would be the same—that is, that such other governments would be furnished with armor plates either by the claimant or by someone else applying the same process, and it can make no manner of difference to the United States under which scheme such manufacture should be conducted. In the one event there might be a judicial determination that the patent was valid, and in the other event there might be a judicial determination that the patent was invalid in some action between parties, strangers to this record. But what interest would the United States have in that litigation? Whichever way it might turn, the result would be the same as far as the United States is concerned. Therefore, if the claimant's construction of this clause of this contract is correct, the United States has imposed a contingency upon which it shall cease to pay royalties, in which contingency it has not the slightest interest. It might as well have made a payment of royalties under this contract contingent upon any other event, such as whether Mr. Harvey should live until the expiration of his patent or not. So far as the effect of

the happening of the contingency upon the United States is concerned, one would have as much effect as the other under such construction. In other words, such a construction of this clause of the contract turns it into a clause of forfeiture—that is, upon the happening of a certain contingency, concerning which the United States cares nothing, the contract should come to an end. This construction should be avoided, if possible.

On the other hand, the construction contended for by the defendant would be of direct benefit to the United States, and directly in line of protecting the interest of the United States in a very reasonable manner, and such a construction is more particularly necessary in the case of a party which contracts, as the United States does, through various officers, than it would be in the case of an individual.

It has already been pointed out that, at the time the United States entered into the first contract with the claimant, just what the process was was a matter of considerable doubt, and even at the time the last contract was entered into various features of it were still matters of doubt, because it was especially provided that the claimant should furnish particular information in regard to certain steps, and should furnish all the information it had as to the present or future workings of the operation. Furthermore, the officers directly interested in making this contract were experts upon the subject of armor, but of course did not pretend to be experts upon the subject of patent law. They were

in position to know or ascertain that armor manufactured as the plates in question were was superior armor, and it was their province to procure such armor for the United States. Upon the subject, however, of whether the process that produced such armor was novel and patentable they were not informed, and were not supposed to be. It would, therefore, be very natural for them to take the position that in the event the claimant had the right to control the manufacture of such armor, as it claimed to have, then they were willing to bind the United States to pay for the use of such process. But if, on the other hand, it should turn out that the claimant did not have the right to control the process, then they, very properly, would take the position that the United States should not be bound to pay for the use of the process when that event became apparent. This is the protection which they should have afforded to the United States, and it is reasonable to say that it is what they intended to afford by these words. They very properly took the position that, *prima facie*, the claimant had the right to control the process. That being so, the claimant should not be subjected to a denial of those rights except upon a hearing at which it was represented, and a determination made by a tribunal which was properly constituted to come to a correct conclusion upon the question.

Finally the clause in question can not properly be construed to apply to a case in which the manufacturers of armor plate for the United States should be

enjoined in an action for infringement by parties claiming under some other patent, and asserting that the patent for the Harvey process was invalid, because if the agents of the United States were thus enjoined, that fact itself would amount to an eviction and bring the contract for royalty to an end, and thus render this clause superfluous and useless. (Walker on Patents, 3d ed., sec. 307; *American Electric Company* v. *Gas Company*, 47 Fed. Rep., 43; *Consumers' Gas Company* v. *Electric Company*, 50 Fed. Rep., 778.)

Moreover, it would seem to follow from the logic of the decision of the Court of Claims that the United States would be estopped in any event from asserting the invalidity of the patent as a defense to this action, no matter how that invalidity might be determined. For suppose an action for infringement had been brought and the patent declared invalid. How could such a decision modify in the slightest the facts asserted and relied upon in the majority opinion, that the United States has received from the claimant every possible benefit that was assured to it by the contract and more than its officers expected (first opinion of the court, record, p. 30; second opinion of the court, record, p. 36); that "when the Secretary of the Navy, adopting the recommendation of the Chief of the Ordnance Bureau, decided that the process was efficient and satisfactory * * * he rendered a decision irrevocable, so far as courts are concerned, and that there had been no failure of consideration;" that this is a case where the defendant has received from the other party

all that the contract promised or that it expected to receive? (First opinion, pp. 31–32.) In this view of the case it seems impossible to escape the conclusion that the court would have held the United States estopped from setting up in this action the fact that the patent upon the claimant's process had been judicially determined to be invalid; for, according to the reasoning of the court, such fact would have no effect to disturb the facts relied upon by the court as paramount that the United States has received from the claimant all that the contract promised or that it expected to receive, *supra*, and that "apart from the question of estoppel, the defendants, in the opinion of the court, have received all that they bargained for." (Second opinion, rec., p. 37.)

**An essential element of estoppel wanting in this case.**

An essential element of an estoppel is that the other party must have been led to change his position for the worse. This element the United States insists is utterly lacking in this case. The utmost that can be claimed is that by the conduct of the United States in approving and announcing its approval of the plates treated by the Harvey process the claimant was led to believe that the United States would continue to subject all armor plates used by it to that process and to pay the claimant royalties thereon, and that the United States has disappointed it in this expectation. But the disappointment of such expectation certainly can not be said to be such a change in the position of the claimant as to create an estoppel. The claimant must

have done something or refrained from doing something. What was it? The Court of Claims suggests that if the claimant had not been misled by the action of the United States it might have sued the Carnegie Company or the Bethlehem Company for infringement. But, as has already been pointed out, the claimant could not possibly have been the gainer by such a suit and might have been the loser. Nor was the position of the claimant changed for the worse by the fact that the United States accepted armor plates from the Bethlehem and Carnegie companies as treated by the Harvey process. The United States made these contracts, not with the claimant but with third parties, for furnishing certain armor to be treated by claimant's process. The claimant took no action in the matter, and was not induced to change its position in any manner, as might have been the case if it had itself manufactured the plates, treated them by the Harvey process, and delivered them to the United States, relying upon the action of the United States in testing and approving prior plates thus treated.

**What claimant's contention comes to.**

Correctly viewed, the contention of the claimant is that the United States, the party especially and vitally interested in the question of the validity of the patent, is estopped to raise that question, but must await the unlikely and improbable action in that regard of the claimant, whose interest is wholly against raising the question, or the vague and remote possibility of the question being raised by nebulous strangers. What

this comes to is that the question is never to be raised at all.

On the other hand, the construction urged by the United States is the only one that can be given to the clause in question which comports with the situation and makes it a reasonable one. And why should the claimant shrink from a trial of the issue raised by the United States in a court especially fitted by long experience with such questions to determine the same? It is not for a moment to be supposed that the United States would have entered into a contract with the claimant to pay it royalties for the use of its process unless it had been understood that that process was a patented one. Indeed, the very fact of a contract for the payment of royalties for use of a process carries with it the idea that such process is a patented one. That the claimant understood this is evidenced beyond peradventure by the fact that it described and represented its process as a patented one, not only at various times prior to the contract, but in the contract itself, while in the same contract it made the obligation and continuance of the agreement of the United States to pay royalties absolutely dependent upon the validity of that patent. This is so obvious that the claimant makes no contention that the United States is bound by the contract if the patent is invalid, but simply attempts to split hairs as to how that question of validity shall be raised and determined. This attitude is indefensible from any point of view. It is contrary to the clear meaning of the contract, and is intrinsically without

merit. The claimant represented to the United States that it had a valid patent, and warranted that validity. The United States, by its defense in this action, has simply called upon the claimant to make good that representation. If the patent validly covers the process used by the United States, the claimant has but to demonstrate that fact, and this whole controversy is at an end. If the patent has not such validity, then the claimant has neither a legal nor a just claim upon the United States.

Indeed, it would seem nothing less than extraordinary that the claimant should practically seek to take advantage to itself of the clause in the contract which the United States had supposed was inserted for its benefit and protection, but which, as interpreted by the claimant and the Court of Claims, is merely an ingenious snare into which the United States was lured and in which it is now entangled. It would seem that if it was the intention of the parties that the United States should be precluded from asserting the invalidity of the patent, there should have been inserted in lieu of this clause a provision that the United States should not, during the continuance of the contract, dispute or object to the validity of the patent.

**The patent, if valid at all, was so within such restricted limits as not to include the process that was actually used in treating the armor plates upon which royalty is claimed in this action.**

There is another phase of the defense raised by the United States, and upon which findings were requested

by it, namely, that the Harvey patent was invalid unless it be held to be restricted to the use of a heat above 3,100° F., and that as thus restricted the process was not used by the United States. (Additional record, p. 2.)

This defense is in no wise inconsistent with the defense of the invalidity of the patent set up by the United States, but is in entire harmony with it, for it carries with it the contention that in so far as it is claimed by the claimant that the Harvey process extends to the much lower degree of heat which was actually employed in the treating of the armor plates for the *Kearsarge* and *Kentucky*, it is invalid. This defense was also included in the estoppel by which the court held the United States was bound, and for practically the same considerations, the substance of which is that the United States had had ample opportunity to inform itself fully about the process and the scope and application of the patent before it entered into its final contract with the claimant, so that before entering into that contract it was the duty of the United States to point out any invalidity in the patent as applied to the process used, and since it did not then speak on that subject it can not now be heard to do so; also, that the subsequent action of the United States in accepting plates from the Bethlehem and Carnegie companies, as treated by the Harvey process, created an estoppel against the contention that such process as validly defined in the patent had not been applied to such armor plates.

The answer to this proposition is that at the most these circumstances indicate that at the time of the making of the final contract the United States was misinformed or had a mistaken idea of the actual valid scope of the patent on the Harvey process, which mistake is not a proper ground upon which to base an estoppel. But before elaborating this point, it is insisted that there is nothing in the findings to show that the United States was fully informed as to the Harvey process, or had made ample tests of the same as a process at the time of the making of the final contract. On the contrary, it appears from the findings that what had been done by the United States was to test armor plates which had been subjected, as alleged by the claimant, to the Harvey process, and these tests were applied to the plates themselves to demonstrate their power of resistance, strength, toughness, and general efficiency. So that the subsequent acceptance by the United States of armor plates under its contract with the Bethlehem and Carnegie companies simply indicated that those plates were up to the standard of the plates that it had previously tested. For there can be no doubt that the plates would have been accepted if found satisfactory in respect to general physical qualities and ability to resist the prescribed ballistic tests if these results had been produced by a process entirely distinct from the Harvey process. In a word, so far as its contracts with the Bethlehem and Carnegie companies were concerned, the United States was interested in results, not methods; that is to say, it contracted with and paid those companies for satisfactory

armor plates; and it was with the claimant company only that it had a contract to pay for the use of the Harvey process.

Recurring now to the question of estoppel—

*There is no ambiguity in the contract in question which requires construction*, and the facts relied upon by the court as creating an estoppel are only evidence of the understanding of the parties as to the construction of the contract.

The contract is entirely without ambiguity. It states:

> Whereas the party of the first part is the owner of all and singular the patented rights in and to a certain process, known as the Harvey process, for the treatment of armor plates for use in the construction of vessels, and of the exclusive right to the use and employment of armor plates manufactured according to said process, as particularly set forth in letters patent of the United States, No. 460262, issued September 29, 1891, to Hayward A. Harvey, of Orange, New Jersey, for certain improvements in decrementally hardened armor plates and in the art of manufacturing the same.

It then proceeds to give the United States the right to use and employ "the aforesaid Harvey process" on certain terms. Here is no ambiguity. The right to use the process described in the patent and not some other process is granted.

The findings of fact and the court's opinion detail the circumstances leading up to this contract and rely

on those circumstances, in part at least, in construing the contract, to the effect that it was not the process described in the patent that was granted, but another process which both parties supposed was described in the patent, and therefore there is an estoppel against claiming the true construction.

Possibly such circumstances might give a court the right to reform the contract to meet the intentions of the parties, but this is not a proceeding with that end in view. This is an action upon the contract as it stands. In such an action it is not permissible to consider circumstances and negotiations leading up to the contract unless there is some ambiguity in the contract which requires it. Here there is a total lack of such ambiguity.

*Am. and Eng. Enc. Law (2d ed.), vol. 17, p. 23:*

> These surrounding circumstances, however, can not be considered when the instrument is in itself plain and unambiguous without reference to them, since their only possible effect in such a case would be to give the instrument a meaning inconsistent with the language used therein.

*Springsteen* v. *Samson, 32 N. Y., 703:*

> It is conceded to be a sound rule in the construction of contracts that where the language is clear, unequivocal, and unambiguous the contract is to be interpreted by its own language, and the courts are not at liberty to look at extrinsic circumstances surrounding the transaction, or elsewhere, for reasons to ascertain its

intent; the understanding of the parties must be deemed to be that which their own written agreement declares.

*Muldoon* v. *Deline, 135 N. Y., 150:*

After reciting the description of the property conveyed in a deed, the court said:

> It is conceded that this description includes the land in controversy. The defendant upon the trial offered parole evidence of the conversations and negotiations between Burton and the plaintiff, and of other circumstances, to show that it was not the intention of the parties to the deed to include therein this land, and that the first course in the deed should not run at right angles with Rust street, but diagonally so as to strike the southerly line of lot 137, 40 feet from the southerly line of lot 121. There is no ambiguity in the description contained in the plaintiff's deed. Every line can be surveyed on the ground just as it is given, and the grantor had the land. When the description is applied to the land, no ambiguity is produced, and hence there is no room for parol evidence. It is true that the intent of the parties to the deed must control. But that intent must be ascertained from the language contained in the deed. When, however, by applying the description contained in a deed, an ambiguity is raised, evidence may be given to explain that; and if it be found that some particular of the description is false or defective, that may

> be rejected, provided the balance of the description when applied to the land is sufficient to show the intention of the parties. The rule in such cases is derived from the civil law, *falsa demonstratio non nocet, cum de corpore constat,* and is fully explained in the leading case of *Miller* v. *Travers* (8 Bing., 244), and in 1 Greenleaf's Ev., 301. Here there was no patent or latent ambiguity, and no false description which within the rule could be disregarded.
>
> The defendant, in his answer, did not allege any mistake and ask for a reformation of the deed. It is possible that there is a mistake in the description contained in the deeds of both of these parties. If the defendant has any remedy, it is by an action to reform the deeds

This case seems to be controlling on this subject. It applies the rule not only to the interpretation of the contract itself, but to the description of the property conveyed by the contract. In that case it was a piece of real estate. Here it is a process described in a patent. The case also points out the proper remedy of reformation if there is a misdescription in the contract.

To say that the understanding of the parties and their conduct prior to the making of a contract can estop them from claiming the true construction of the contract is to abrogate all these well-settled rules.

If, in an action on contract, either party may be estopped by a showing of what the parties understood to be the meaning of the contract prior to its execu-

tion, and thereby be prevented from relying on the plain terms of the contract, the principle that a contract can not be varied by parole would be of no value, and there would be no place for the frequent action for reformation of contract. All that would be necessary would be to show the prior intention, and an estoppel would immediately arise.

Besides the circumstances preceding the execution of a contract, the actions of the parties thereto after it is made may be considered in its construction. This rule, however, is also subject to the same limitations as that above mentioned—that is, such circumstances can never be considered where there is no ambiguity in the contract. In this case the court evidently relied to a great extent on the conduct of the United States under the contract in suit to give construction to such contract and to the patent therein mentioned. It is insisted that the contract contains no ambiguity which justifies this course.

*Am. & Eng. Enc. of Law (2d ed.), vol. 17, pp. 23–25:*

> The construction which the parties have, by their acts, placed on an ambiguous instrument is entitled to great, if not controlling, weight in determining its proper construction. Such practical construction will, however, be given weight only when the contract or instrument is ambiguous, since a construction contrary to the plain terms of the instrument is necessarily erroneous, and the parties are not bound by their erroneous construction of the contract.

*Railroad Company* v. *Trimble, 10 Wall., 367:*

> Where there is doubt as to the proper construction of an instrument, this feature of the case is entitled to great consideration. But where its meaning is clear in the eye of the law, the error of the parties can not control its effect.

*Davis* v. *Shafer, 50 Fed. Rep., 764:*

> Where the contract in question employs words or terms of doubtful or ambiguous meaning and application, the meaning and application given them by the parties to the contract and acted on by them should prevail over any technical, grammatical, or logical interpretation of the words and phrases. But where the contract is free from ambiguity, and "its meaning is clear in the eye of the law," such evidence is clearly incompetent. (*Railroad Co.* v. *Trimble*, 10 Wall., 367; *Michael* v. *Insurance Co.*, 17 Mo. App., 23; *Chrisman* v. *Hodges*, 75 Mo., 413; *Miller* v. *Dunlap*, 22 Mo. App., 97.)

If the principles above laid down are correct, it is perfectly clear that the conduct of the parties prior to the making of a contract and their conduct in fulfillment of the contract can not be the basis of an estoppel from insisting on the true interpretation of such contract.

If the contract is entirely without ambiguity, to say that the statements and conduct of the parties prior to the contract which show their understanding of its meaning may be the basis of an estoppel against one

of them from showing the true meaning, is to say that such evidence is not only permissible but in the highest degree controlling.

To say that their conduct and statements after the contract is made, and when they are acting under it, estop them from showing the true meaning of the contract, is also to say that such evidence is not only permissible but controlling.

If, on the other hand, the contract is ambiguous, such conduct and statements, both before and after the contract, are permissible evidence; but they are only evidence, and they may be explained and may be offset by counter evidence. They certainly create no estoppel.

In no event should such evidence be considered without considering the counter evidence, prominent among which is the true construction of the contract—that is, the construction which would be given to the contract in the absence of such circumstances. Certainly the weight to be given such circumstances can not well be determined without considering what the construction of the contract is according to its own terms, and how far such evidence is intended to vary such construction.

This the court refused to do in this case.

But the circumstances relied upon by the court as creating an estoppel are only circumstances indicating the understanding of the parties as to the meaning of the contract. As such they may be very good evidence, but they are nothing more.

The United States made a contract for the use, upon compensation, of a certain process described in a certain patent. It did not use that process, but used some other. It did, however, state that it was using, and had used, the patented process, and it made one payment on account thereof. To say that this creates an estoppel is to deny the soundness of the statement of the Supreme Court in 10 Wallace, above quoted, to the effect that a person is not bound by his misinterpretation of a contract.

If a party mistaken as to the meaning of a contract is not bound by his misunderstanding, there can be no duty on him to state what the contract really does mean.

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Upon the foregoing grounds the United States respectfully insists that the decision of the Court of Claims in this action was erroneous and should be reversed.

LOUIS A. PRADT,
*Assistant Attorney-General.*

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# UNITED STATES SUPREME COURT.

THE UNITED STATES,
Appellant,

AGAINST

HARVEY STEEL COMPANY,
Appellee.

October Term,
1904. No. 275.

## BRIEF ON BEHALF OF THE HARVEY STEEL COMPANY.

### Statement of Facts.

This case comes up on appeal from a judgment in favor of the claimant, the Harvey Steel Company, for $60,806.45 rendered by the Court of Claims.

The suit, brought by the Harvey Steel Company against the United States, is based upon a written contract dated April 12, 1893, entered into between the Harvey Steel Company and the United States, through the Secretary of the Navy. The suit is for the recovery of royalties alleged to be due under this contract for the use of the "Harvey Process" in the treatment of armor for naval vessels. The process may be briefly characterized for purposes of general explanation as a method of hardening armor plates of soft or "low" steel by prolonged and deep carbonization at a very high temperature, under certain special conditions which produce an excessive or "glass" hardness at the surface and a gradually decreasing hardness, and proportions of carbon for a certain depth

below the surface. The result is an armor plate having the ideal conditions and characteristics of a soft back and intensely or "glass" hard impact face united so homogeneously as to be without any intermediate weld or place of weakness.

The Court of Claims in its decision established fifteen findings of fact, and the statement of facts here presented is that which is set forth in the findings. The findings are full and complete and fairly disclose the history of the events connected with the case. As establishing the foundation for the conclusion of law reached by the Court, they properly form the subject of the introductory discussion of the case.

The contract of April 12, 1893, which is the contract in suit, made between the Harvey Steel Company, the owner of the patented rights to the Harvey process, and the United States, represented by the Secretary of the Navy, is set forth at length in Finding X. By this contract the United States acquired from the Harvey Steel Company a right or license to use a certain process for the treatment of armor plates which it is recited in the contract is "known as the Harvey Process." It is further recited that this "Harvey Process," so known, is set forth in a patent to Hayward A. Harvey, claimant's assignor, No. 460,262, dated September 29, 1891.

The contract provided that the Government was to have the right to use the said "Harvey Process" in the treatment of armor plates manufactured for all naval vessels the construction of which was authorized by Congress up to July 19, 1892, and the right to use and employ the armor plates for said vessels manufactured according to said process. A lump sum amounting to $96,056.46 was agreed upon to be paid for the right covering the armor plates on vessels authorized up to the time mentioned. A similar right or license was given by the contract for the use of the process in the treatment and manufacture of armor plates, and for the use of the armor plates so treated and manufactured, for all vessels authorized sub-

sequent to July 19, 1892, at a royalty of one-half of one cent per pound of the finished plate.

The contract, however, is something more than a naked license under a patent. Several covenants appear in it which are of great importance. It bound the claimant to disclose the "formulæ for the compounds used and employed in the application of the Harvey process." It reserved payment in full of the lump sum named until "said process shall have been tried and found to be efficient and in the judgment of the Secretary of the Navy of satisfactory value." It required the claimant to covenant and agree "that it will hold and save harmless, and at its own risk and expense defend the United States * * * from and against all and every demand or demands for or on account of any infringement or alleged infringement of patent rights appertaining to said process or plates." Hence if the use of the Harvey Process itself involved infringement of any prior patent for the kind of plate treated, or the method of carbonization utilized, the claimant obligated itself to defend the United States. It bound the claimant to "furnish full and complete information regarding the composition of the compounds employed in the Harvey process, and the application of the same." It also bound the claimant to "impart to the party of the second part all information concerning any and all improvements which said party of the first part may, at any time in the future, make in or upon said process as covered by the aforesaid letters patent, and that the party of the second part shall have the right to adopt and use and employ any or all of such improvements in said process, and to use the armor plates manufactured in accordance therewith under the terms of this agreement, without the payment of any compensation or royalty therefor to the party of the first part in addition to that to be paid as hereinbefore stipulated."

In consideration of this license and of these several promises made by the Harvey Steel Company—

all of which are still *continuing* obligations— the United States obligated itself to pay the royalty of one-half of one cent per pound on all armor made under or by the "Harvey Process" for ships authorized subsequent to July 19, 1892 (Finding X).

By the Act approved March 2, 1895, Congress authorized the construction of two battleships for the Navy, which were known respectively as No. 5 and No. 6 and subsequently named the "Kearsarge" and "Kentucky." On the 15th of April, 1896, the United States, by the Secretary of the Navy, issued and had advertised on that day circulars inviting proposals for the supply of nickel steel armor plates for the said two battleships to the amount of about 6,000 tons, the said advertisement requiring of the bidders that the said armor plates should be "treated by a process of super-carburization known as the 'Harvey Process.'" The advertisement further stated to the bidders as follows:

"Bids are hereby invited for supplying the following named material: About 6,000 tons, more or less, of nickel steel armor, to be of the best material and domestic manufacture, part of which, as shown by the specifications, will be required to be treated by a process of supercarbonization known as the 'Harvey Process.'"

"The prices paid for armor treated by the 'Harvey Process' must not include anything for royalties, as the Department has acquired the right to use said process and will indemnify the contractors against all claims thereof." (Finding XII.)

The Bethlehem Iron Company and the Carnegie Steel Company, Limited, having made bids in accordance with the specification and advertisement above quoted, the United States, on June 1, 1896, by the Secretary of the Navy, entered into two separate contracts with said companies respectively in which they agreed to furnish in certain proportions the armor described in said advertisement and circular, expressly including therein the "Harveyed" armor; and in compliance

therewith proceeded to manufacture and treat the armor plates, and supplied and delivered the same in due course to the United States. These plates were manufactured under the inspection and supervision of officers and agents of the Ordnance Bureau, and were accepted and paid for by the bureau as having been treated by the "Harvey Process." (Finding XIII.)

The weight of the finished plates of the armor so treated and supplied to the United States by the Bethlehem Iron Company and the Carnegie Steel Company, Limited, for the battleships Kearsarge and Kentucky, at the rate of royalty of one-half of one cent. per pound for the finished plate, amounted to the sum of $60,806.45. The claimant has applied to the United States and the Secretary of the Navy for payment for said royalty, which has been refused, and there is now due and owing from the United States to the said claimant under the said contract of April 12, 1893, as royalties for armor used for the said battleships Kearsarge and Kentucky the sum of $60,806.45 (Finding XIV.).

The above is a brief outline of the facts of the claim. As stated by the learned Chief Justice of the Court of Claims in the opinion of the Court overruling a motion for a new trial:

"It is beyond question that the claimant has fully complied with all the obligations of the contract; and it is also beyond question that the defendants have all the benefits which they desired from the use of the process and more than their officers expected."

There is no suggestion in the record of any failure on the part of the company to live up to all of the promises and covenants embodied in the contract.

Nor are there any facts in the record upon which to base a suggestion that the United States or its officers were in ignorance of the exact features of the process for which they contracted, or that the process was inefficient for its purposes, or that it was adopted hastily and without proper deliberation. The early

negotiations, which resulted in the formal adoption by the Navy Department of the Harvey process and the execution of the preliminary contract of March 21, 1892, for the treatment of the armor for certain specified vessels then under construction, took place under the administration of President Harrison, when Mr. Tracy was Secretary of the Navy, and Commander Folger was the Chief of the Bureau of Ordnance. The later negotiations, the execution of the final contract (the contract in suit)—which was *proposed not* by the claimant but by the Secretary of the Navy, and the late Admiral, then Captain Sampson, as Chief of Ordnance, by letter of March 30, 1893 (Finding IX., p. 22)—and the determination of the Navy Department that the process had been "tried and found to be efficient, and, in the judgment of the Secretary of the Navy, of satisfactory value," took place in the administration of President Cleveland, when Mr. Herbert was Secretary of the Navy and Captain W. T. Sampson was Chief of the Bureau. Two entirely different administrations, both of the Department and of the Bureau, thus concurred in their opinions as to the value of the process after most exhaustive tests. The contract was carefully drawn to protect the Government's interests and it was entered into under conditions that make it clear that the officers of the Government understood perfectly what process they were contracting for under the name of the "Harvey Process" and that the process contracted for was the process in fact used. The statement of these conditions and the history of the investigations of the Navy Department in reference to the Harvey Process which attained their final consummation in the contract in suit are fully set forth in the findings.

It may be well at this point to recall the general facts connected with the development of armor for naval vessels, which were fully proved in this case in the record in the Court of Claims, and are matters of history within the general knowledge of all well in-

formed persons, and of which accordingly the Court may take judicial notice, illustrating, as they do, the situation at the time when Mr. Harvey made his appearance upon the scene with his invention.

The early armored ships of the period of 1860 carried a slight thickness of armor as compared with that of the present day. The British ship "Warrior," in 1861, was provided with iron plate four and a half inches thick, backed by two 18-inch thicknesses of wood. Subsequently the "Bellerophon" was provided with armor six inches thick.

During the Civil War in the United States, experiments were made with a series of superposed plates. These superposed plates constituted what was known as "laminated" armor. Thus the Confederate ironclad "Atlanta" had plates making up the aggregate thickness of four and a half inches of metal. The resisting power of this laminated armor was, however, so small that it was abandoned.

While the development of armor plate was in progress, improvements were constantly being made in guns, and their greatly increasing efficiency led to a corresponding endeavor to increase the efficiency of armor. For sometime this could only be accomplished by increasing the thickness of the plate. To such a point was this carried that in 1871 the armor of the British ship "Inflexible" had reached the monstrous proportions of 24 inches in thickness, backed by 11 inches of wood.

The size of ships was increased to enable them to carry this enormous weight of armor, but, nevertheless, so much of the available weight of the ship was taken up by it that it was impossible to provide satisfactorily for three principal requirements of great naval ships—namely, guns, machinery and coal supply. The essential problem then was to discover some mode of increasing the resisting power of armor by which its thickness and consequent weight could be reduced, and thereby attain as great or greater powers of resistance. Various means were adopted. Elastic backing was

tried, which, while it deadened somewhat the effect of a blow upon the structure in rear of the backing, afforded less power of resistance on the face of the armor than a rigid backing. This plan was, therefore, abandoned. The character of the material composing the armor was varied—cast iron, wrought iron and steel were all tried. The difficulty with cast iron and with steel was that they were too brittle, and showed a tendency to crack. The difficulty with wrought iron was that it was too soft, and afforded too little resistance to penetration. The idea was then hit upon of combining the qualities of steel and iron in such a way that the armor should have a hard face, and a soft tough body. This suggestion resulted in the development of the so-called compound armor, which came to be adopted as the universal type of armor plate in the British Navy, although it was not looked on with favor on the Continent. The theory of it was that a steel face should be used, sufficiently hard to resist the blow of the sharp point of the projectile, while an iron body should be used to communicate its toughness to the steel face, and thereby to prevent cracking. The two strata, one of steel and the other of iron, were united by the simple process of welding, which it was hoped would so firmly bind them together that each would have the benefit of the qualities of the other to supply its own deficiency.

At the same time, the great French armor maker Schneider never adopted this process, but continued to make plates of homogeneous steel. These were found to be either so hard and brittle as to crack *through* or so soft as not to keep out projectiles.

The difficulty with the compound armor as adopted in England was the fact that it was impossible by means of welding to make an inseparable union of the two non-homogeneous surfaces. The tendency of the projectiles was to crack and shatter the hard face, and even to cut disks out of it, which fell off at the point of welding, so that it was nothing more than a laminated

armor, in which two sheets, each of great thickness, had been joined together. As soon as the hard surface was shattered by cracking, the soft body could oppose little or no resistance to the projectile. Such was the condition of affairs in 1889, when the Navy Department was called upon to decide what kind of armor it would adopt for the first vessels of the reconstructed navy. At this time none of the armor in existence was satisfactory. The great desideratum was to obtain a plate with a tough body, but with a hard surface, and to have the two so completely united as to be homogeneous, and so gradually shading into each other as to present no distinct or definite line of demarcation which would enable the face to be scaled off from the body under the impact of projectiles. The fact was well recognized that if an armor could be found which would show such a gradual change or structure from the tough body to the hard face, as to present no definite line of cleavage or demarcation, the ideal armor would be attained.

High authorities stated that the attainment of these conditions in an armor plate was impossible.

The question at this time was one of peculiar interest in this country. Two armored ships, the "Maine" and the "Texas," had been authorized, and several of the monitors were to be rebuilt. For all these armor was required, and a contract for a large quantity had been made in 1887 with the Bethlehem Iron Company. None of this armor had yet been manufactured and the question what particular kind of armor should be used was still regarded as open. It was probable also that Congress would shortly authorize the construction of great modern battleships, as, in fact, it actually did in 1890. It was at this critical period and in this very year, 1890, that Mr. Harvey came upon the scene with his invention.*

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* (See The Development of Modern Ordinance and Armor in the United States by Rear-Admiral O'Neil, Chief of Bureau of Ordinance. Published by Society of Naval Architects, November, 1902. See also same article in Cassier's Magazine for September, 1902).

The important point upon this branch of the discussion is that the United States Government knew what it was contracting for when it made the contract of April 12, 1893. Few inventions adopted by the Government had been more exhaustively investigated, experimented upon and tested in actual practice in order to determine their detailed requirements, their merits and the question whether they were entitled to consideration. The wonderful efficiency of the Harvey process is well known. The influence of its adoption by the United States revolutionizing, as it did, the manufacture of armor for battleships all the world over, is also well known, but it is not generally known with what deliberation, with what careful and laborious investigation and with what a succession of practical tests and experiments the Government proceeded in determining whether it should in the great reconstruction of the navy then beginning adopt the admittedly unsatisfactory armor of one or another of the European naval powers or strike out in a new path by the adoption of Mr. Harvey's process. All this is told at length in the findings of the Court.

It appears (Finding III.) that in 1890, three years before this contract was made, a specimen armor plate was exhibited to the Chief of the Bureau of Ordnance, and he was informed that Mr. Harvey had discovered a process for hardening such plates that would produce a material of a combined hardness and toughness which, up to this time, had not been attained by manufacturers. To test this invention the Chief of the Bureau of Ordnance, Commander Folger, procured two plates from the Linden Steel Company, a well-known steel manufacturer. One of these was given to the Harvey Steel Company to be treated by the Harvey Process, which, as already stated, was a process of carbonization or super-carburization of the steel plate. The other was retained by the Ordnance Bureau. Both were subjected ultimately to the same tests (Finding III.).

The Chief of the Bureau of Ordnance officially reported this test to the Secretary of the Navy as follows :

"One plate about 2½ feet square and 6 inches thick was carbonized in a gradually decreasing amount to a depth of 3 inches and subjected to a comparative ballistic test by the attack of a 6-pounder Hotchkiss projectile, with a similar plate untreated. The resulting penetration in the untreated plate was about 3 inches ; in the carbonized plate it was *nil*, the projectile being completely shattered.

"In view of these results, which were reproduced and corroborated by further experiments, the Bureau has ordered an untreated armor plate 8 feet by 6 feet by 10½ inches, and proposes to have erected at the Washington Navy Yard the necessary plant for treatment by the Harvey Process. It will then be subject to a ballistic attack with a 6-inch gun and a comparative study made of the effects upon the foreign plates recently tested at Annapolis.

"The object of the experiments, as will be apparent, is the development of an armor plate which shall possess a superficial hardness and the toughness inherent in all steel or one of its alloys " (Finding III.).

In February, 1891, the Chief of the Bureau of Ordnance, as a further test of the Harvey Process, procured two armor plates from a foreign manufacturer, Schneider & Company, known as Creusot plates. One of these in like manner was retained by the Ordnance, Bureau, and one the claimant hardened, and both were subjected to the same tests. The Chief of the Bureau of Ordnance officially reported the results of this test to the Secretary of the Navy as follows :

"In February last took place the test of the Creusot 10½-inch steel plate which had been treated by the Harvey Process at the Washington Navy Yard. The plate was attacked by seven 6-inch armor-piercing shells, three Holtzer and 4 Carpenter, five from a 6-inch gun of 35 calibres, the striking velocity being 2,065 foot-seconds. The greatest penetration was 4 inches, except in one round at the center of the plate, where the point of the shell reached the backing. All the projectiles were broken up. The plate had cracked, but until the last round, none were detached from the

backing. At this round about one-eighth of the plate fell to the ground. These results are remarkable and indicated to the Department a probability that in this treatment had been found the means of producing the ideal armor plate—a hard front combined with a tough back without any weld or line of demarcation between the two" (Finding IV.).

Following the above tests, on the 3d of March, 1891, at the request of the Navy Department, an option was given to the Navy Department for the purchase of the right to use the Harvey process which had been exhibited to them at the Navy Yard in February, 1891, upon vessels which had at that time been authorized. This option was accepted by the Navy Department, and is set forth in the findings (Findings, V. and VI.). *At the date of the acceptance of this option, the patent had not been issued;* nor was it issued *until after six months later, viz., on September 29, 1891* (Finding II.).

About a year later, on March 21, 1892, the United States entered into a written agreement with the Harvey Steel Company to purchase the right to employ the Harvey process in Harveying armor for twelve vessels which were designated in the contract (Finding VI.).

Thereafter additional trial armor plates were subjected to *numerous experimental tests* by the claimant and by the officers and agents of the United States, and on the 8th of October, 1892, the claimant was notified that the said process was definitely and formally adopted by the Navy Department in a letter of that date in the following words:

"You are informed that the Harvey Process for armor plate has been definitely adopted by the Navy Department" (Finding VII.).

The contract of March 21, 1892, had contained certain provisions in reference to the cost and supervision of the process of treating the armor plate. Shortly after, however, the Government made contracts with the armor manufacturers, the Bethlehem Iron Com-

pany and the Carnegie Steel Company, for the treatment of the armor plates by the Harvey process, which contracts provided independently for the price to be paid for the cost of treatment. The Chief of the Bureau of Ordnance thereupon proposed to the claimant that a new contract be made abrogating the contract of March 21, 1892, but renewing its provisions for the payment of royalty for vessels theretofore authorized by Congress, and further providing for a royalty for armor manufactured and treated by the Harvey process for vessels authorized subsequent to the execution of the contract of 1892. This proposal was made on March 30, 1893, by Captain W. T. Sampson, who had replaced Commander Folger as Chief of the Bureau of Ordnance, and by direction of Hon. H. A. Herbert, who had replaced Mr. Tracy as Secretary of the Navy, and the contract in suit was its direct outcome and followed the lines of this proposal (Finding IX).

All the tests, negotiations and contracts above referred to were prior to the final contract of April 12, 1893, and show plainly that the Government knew what the Harvey Process was and what it was to receive under the contract of April 12, 1893, upon which this suit is based. The Court of Claims was right when it said (p. 29):

"No purchaser in the world ever better knew or was completely bound to know what he was buying than were the defendants when they entered into the contract of April 12, 1893."

*A fortiori*, no purchasers were ever more completely in possession of knowledge as to what they were contracting for and receiving and using than were the defendants when they contracted with the Bethlehem and Carnegie Companies for Harveyed armor for the battleships "Kearsarge" and "Kentucky" and received the armor as Harveyed armor, as above set forth (Finding XII.).

But the precautions of the Government did not stop here. Even in this very last contract of April 12, 1893, it was provided that the lump sum of $96,056.46 to be paid as a royalty for the use of the Harvey process in the manufacture of the armor of naval vessels authorized up to July 19, 1892, should not be paid in full, but "that 10 per cent. of said sum shall be withheld by the party of the second part (the United States) until, upon the receipt of the formulæ for the compounds used and employed in the application of the Harvey Process, said process shall have been tried and found to be efficient and in the judgment of the Secretary of the Navy of satisfactory value." Even after, therefore, the making of this final contract the Government still reserved its right to pass upon the value of the process and withheld part of the compensation for that purpose. In fact, it withheld this money for eight months for the purpose of making this final investigation, and not until December 7, 1893, was the matter closed. At this date "the defendant's officers being satisfied that the claimant had complied with the said contract of April 12, 1893, and demonstrated the value and efficiency of the process, the 10 per cent. withheld by the United States under said contract of April 12, 1893, was paid over to the claimant" (Finding XI.).

In accordance with this contract, when the Secretary of the Navy invited bids for the armor for the "Kearsarge" and "Kentucky" in 1896, upon which royalties are now being sued for, he specified 6,000 tons of the armor "to be treated by a process of carburization known as the Harvey Process," and he stated that "the prices paid for the armor treated by the Harvey Process must not include anything for royalties, as the Department has acquired the right to use said process." Furthermore, the two armor manufacturing companies having made their bids in accordance with the specifications and advertisement, entered on the 1st of June into their contracts with the United

States, in which they agreed to furnish the armor mentioned in the bids and advertisement, including therein the armor treated by the Harvey process. Not only this, but, according to the finding of the Court of Claims, the companies *complied* with said contracts and proceeded to manufacture and treat the armor, and in due course delivered the same to the United States—which is, in substance, a finding that the manufacturers actually used the Harvey process, for only by so doing could the contract be complied with, as the Court expressly finds. The finding further states that the armor was manufactured under the supervision of the agents and officers of the Ordnance Bureau, and was accepted and paid for by the Government "as having been treated by the Harvey Process." In fact, the Court in its opinion on the page cited above says that the process employed in making the armor for the "Kearsarge" and "Kentucky" "was precisely the process employed in the previously manufactured armor plates, concerning which the Chief of the Bureau had certified to the satisfactory value and efficiency of the process;" upon which certificate the Navy Department had paid the reserved 10 per cent.

The findings therefore show that the Government has received all that it bargained for under the contract of April 12, 1893. The process was and has proved to be of great value both before and after the contract of April 12, 1893.

The license agreement, as above stated, set forth in the findings, involved the giving to the licensee, not only permission to use, and knowledge of the process, but the following additional considerations:

(*a*) That the Harvey Company should furnish formulæ of its compounds. *This is a continuing obligation.*

(*b*) That it should hold the Government harmless against every demand for any infringement of patent rights (of others) appertaining to said process or plates. *This is a continuing obligation.*

(*c*) That it should impart all information concerning

all future improvements, and that the Government should have the right to adopt and employ all such improvements without further consideration. *This is a continuing obligation.*

The claimant entered into a bond to secure its obligations (Rec., p. 25).

As there is no question but that the Harvey Company have fully complied with all these conditions and considerations in the past, *and must do so in the future*, there can be no question of failure of consideration. The question whether the patent is valid or invalid is, therefore, wholly immaterial. The Government did not contract to acquire the patent or any exclusive rights under it.

The findings of fact are full and complete. They show that *this* was a binding contract entered into after much deliberation and upon the *initiative* and *solicitation* of the Government (Finding IX.). They show that the Government had full knowledge of the details of the process. They show that the Government knew fully the details and scope of the patent for the Government itself was the grantor of the same. They show that there has not been, and could not be, a failure of consideration. They show that the Government has contracted with the great armor making companies in express terms requiring them to treat the armor made "according to said Harvey process" (Rec. 24, Finding X. and Finding XII.) They show that the companies complied with their contracts, and did so manufacture and treat the armor plates (Finding XIII.). They show that the said armor was made "under the inspection and supervision of officers and agents of the Government" (Finding XIII.). They find that the armor so made complied with the Government requirements as being "treated by the Harvey process," and was "accepted and paid for as having been treated by the Harvey process" (Finding XIII.). They show that the Harvey Steel Company has performed, and is willing to perform, all obligations assumed under the contract. They show that the amount of

royalty at the rate of one half cent per pound on the armor of the "Kearsarge" and "Kentucky" is $60,806.45. The findings clearly justify the conclusion of law.

## The Position of the Government.

The Government objected to certain of the first set of Findings of the Court of Claims for "certain errors of fact" (Rec., p. 34), but we do not understand that the facts can be inquired into on this record. The findings are conclusive.

These facts that the Court found were that the Harvey Patent covered the Harvey process, so known (Finding II.), and that this process was the process tested (Finding IV.) and utilized (Findings VII., IX., XII. and XIII.).

Notwithstanding these objections the Court declined to modify and retained its Finding II. that the patent was "for such Harvey Process," and also retained the Findings XII. and XIII. which explicitly find that the Government required the plates made for it to be treated by the "Harvey Process," and retained the finding that the manufacturers "in compliance therewith proceeded to manufacture and treat the plates," and that "they were accepted and paid for as having been treated by the Harvey Process."

These findings of fact stand, therefore, as conclusive.

The Government now seeks to avoid or contradict the recital in the agreement of April 12, 1893, that the Harvey process is "set forth" in Patent 460,262, and to resist payment on two contentions:

(1) That the Harvey Patent No. 460,262, as a patent, is void, or,

(2) That it should be so narrowly construed that it does not include the process actually used and "known as the Harvey Process."

As to these two contentions the Court of Claims held, as to the first contention:

*(a)* That it would not examine the prior state of the art or compare the Harvey Patent therewith to determine whether the patent was or was not valid. It held that the Government being a licensee by express written contract was estopped to question the validity of the patent; and, hence, that under the circumstances of this case the question of validity or invalidity was immaterial (Rec., p. 32).

As to the second contention, it held :

*(b)* That it would not enter into such an examination of the patent or of its construction in view of the prior art (as it might and would if the case had been one of infringement) (Rec., 32 and 36). It did, however, compare the patent with the process actually used by defendants, and found the differences "trivial," and the contention of defendant "exceedingly narrow and technical" (Rec., 36).

Further than that it held that it was unnecessary to go, in view of the full knowledge and opportunities of knowledge had by the defendant, both of the Patent itself (the United States was the grantor of the patent) and of the actual process revealed to, tested by and used by it.

## FIRST POINT.

**The Court of Claims did not err in refusing to enter into an examination of the state of the prior art to determine whether the Harvey Patent was valid or invalid.**

This suit based on an express contract and a license cannot raise any question of validity of the patent in a suit for license fees.

The law is, of course, clear that a party who has contracted to pay royalty for the use of a patented process with full knowledge of what he was contracting for, and who has had the benefit of the use of such process, cannot resist payment of such royalty on the plea that the patent granted is invalid.

A license under a patent never implies a warranty of validity.

3 Robinson on Patents, 692.
Walker on Patents, 4 Ed., 305.
Stott vs. Rutherford, 92 U. S., 107.
Kinsman *et al.* vs. Parkhurst, 18 How., 289.
Eureka Co. vs. Baily Co., 11 Wall., 488.
Crossley vs. Dixon, 10 H. of L. cases, 306.

This rule is particularly applicable to the present case, for here the process was revealed to the Government long before it was patented, and the Government made its contract, not so much upon the patent, as upon the exhibition and tests of the process which had been exhibited to it (in February, 1891, see Finding IV.), and after numerous and repeated subsequent careful tests.

The Government itself had granted the patent, on application of the inventor. It, therefore, knew, or had full, and equal opportunity with the inventor, to know, both its validity and its scope.

Moreover, it has insisted on and received the benefit of Mr. Harvey's personal supervision, in the practice of the process in the best and most approved

manner, and it contracted for Mr. Harvey's business secrets in the exact nature of his carburization compositions, and has insisted upon a revelation of those secrets, even at the risk of a loss to the claimant of ability to obtain patents in foreign countries.

Its persistent testing of the process, and the uniform reports, as the results of the most careful tests of the process, show that the process is of the highest value to it.

It protected itself by a special clause in the agreement against the payment of royalties *after* a judicial determination that under the patent it was not legally entitled to cover and protect the process and product. Nothing of the kind has occurred. Surely this clause does not permit the Government to contract for and use the process, and receive the full benefit from it, and resist payment for what they have used, by *then*, for the first time, alleging that the patent is invalid.

In *Kinsman et. al.*, vs. *Parkhurst*, 18 Howard, 289 (above cited), there existed facts bearing a striking resemblance to those present in this case. In that case Parkhurst was the owner of certain letters patent for improvements in a machine for ginning cotton and wool. On the 22d of May, 1845, Parkhurst entered into an agreement with Kinsman whereby the latter secured an interest in the patent and whereby provision was made for the parties to jointly work the invention. In February, 1846 (one year later) the parties entered into a new agreement which provided among other things that Kinsman should after a certain date pay to the patentee, Parkhurst, one hundred dollars for every machine made and sold after that date. It appeared that Kinsman acted under the agreement and made machines covered by the patent and refused to account to Parkhurst, the patentee, for the reason that the patent was invalid.

Mr. Justice CURTIS, in delivering the opinion of the Court in this case, said :

" The principal objection made by the appellants to the decree of the Court below is, that Parkhurst was

not the original and first inventor of the thing patented. We are not satisfied that this is made out. But we have not found it necessary to come to a decided opinion upon this point, because we are all of the opinion that, under the agreement of the ninth of February, 1846, the invalidity of the patent would not afford a bar to the complainant's right to an account. Having actually received profits from the sales of the patented machines, which profits the defendants do not show have been or are in any way liable to be affected by the invalidity, its validity is immaterial."

In *Stott vs. Rutherford*, 92 U. S., 107, this Court quoted with apparent approval the English case of Lawes vs. Purser as follows:

"In Lawes vs. Purser, 6 Ell. & Bl., 932, the plaintiff, a patentee, had licensed the defendant to manufacture the article covered by the patent. After having done so, he refused to pay the royalty. The patentee sued him. He pleaded 'that the letters patent were void, and that he had a right to make and sell the article without the plaintiff's permission.' The plaintiff demurred. The Court said 'It would be monstrous if the defendant, after such an agreement acted upon, could, on this ground, refuse payment.' The demurrer was sustained."

In *Walker on Patents*, 4th Ed., Sec. 307, it is said:

"No warranty of validity of the letters patent is implied in any license given thereunder, and unattended proof of invalidity is therefore no defense to any suit for promised royalties. As long as a licensee continued to enjoy the benefit of the exclusive right, he must pay the royalty which he promised to pay, and he cannot escape from so doing by offering to prove the patent to be void."

In *Moore vs. National Water-Tube Boiler Co.*, 84 F. R., 346, the Court said:

"The defendant now insists that the complainant is not entitled to royalty on these boilers, because the patent for the device was invalid and void. The patented device was used by the defendant under the license acquired by the contract, and it cannot, when asked to pay the royalty provided therein, set up the

invalidity of the claim of the patent. The validity of a patent cannot be determined in a suit against licensee for royalties, nor can the holder of a license deny the validity of a patent which he enjoys under it."

See, also, to the same effect

*Birdsall vs. Perego*, 5 Blatch., 251.
*Sargent vs. Larned*, 2 Curtis, 340.
*Marsh vs. Dodge*, 41 Hun, 278.
*Bartlett vs. Holbrook*, 1 Gray, 118.
*Marston vs. Sweet*, 66 N. Y., 207.
*Pope Mfg. Co. vs. Owsley*, 27 F. R., 105.
*Marsh vs. Harris Co.*, 63 Wis., 283.
*Magic Ruffle Co. vs. Elm City Co.*, 13 Blatch., 151.
*Crossley vs. Dixon*, 10 House of Lords Cases, 306.

In the present case, the clause which it is alleged gives the Government the right to question the validity of the patent is as follows :

" That in case it should at any time be judicially decided that the party of the first part is not legally entitled to own and control the exclusive right to the use and employment of said process and decrementally hardened armor plates produced thereunder, as set forth in letters patent aforesaid, then the payment of royalty under the terms of this agreement shall cease, and all sums of money due the party of the first part from the party of the second part as royalty for the use and employment of said process and armor plates, as aforesaid, shall become the property of the party of the second part."

It is contended that this clause enables the Government *itself, at any time*, to resist payment of royalty by alleging the invalidity of the patent.

This is clearly not the true construction. It amounts to saying that the Government has a contract which not only gives the Government the full benefit of the use and practice of the patented process, but obligates the owner of the patent for all time to give it free use of all improvements and disclose all its secrets, and guarantees the Government against the claims of

others, and yet, although no one else has successfully attacked the patent, the Government may decline to pay its royalties by itself disputing the validity of the same, and that it may call upon the inventor to sustain his patent against attack based upon a lengthened examination of the whole prior art of cementation and armor making.

This is a wholly unreasonable construction and would lead to inequitable consequences.

Clearly, the clause contemplates a decision in some other case than one between the parties to the agreement.

The agreement contains no reservation of right to the Government itself to dispute the validity of the patent.

The well-settled rule as between licensor and licensee is that a licensee cannot itself dispute the validity of a patent, while it continues to act under its license. If a different rule were to be observed with this license, such an unusual right must be *unmistakably* expressed. This is not the case here.

There is no authority to support the strained construction of the clause in question, relied upon by the Government.

Its natural meaning is that the Government is rendered exempt from *further* payments of royalty *after* the date, when it has been judicially decided (if ever) in some other litigation, that the patent is invalid.

No such decision has been rendered. So the Court of Claims expressly held (see Finding XV.).

It would certainly be an unnatural construction of the contract to hold that it contemplated that the Government had taken a license and agreed to pay royalty, and yet that upon the very first plate being made thereunder, it could resist payment of any royalty thereon, by forcing the licensor to prove the validity of his patent, thereby, perhaps putting him to an expense far exceeding the value of the royalties, in defending an attack, *by the licensee itself*, on such validity. It would certainly be an unnatural construction of

this clause to hold that the Government could continue to use the process, *under the license which bound it to the payment of royalties*, in the manufacture of an indefinite number of tons of armor, for all of which, from the very first, it could refuse to pay the stipulated royalty; and that this use and this refusal were to continue until the licensor had proved the validity of his patent. Under this interpretation, the contract of 1893 becomes merely an agreement that the Harvey Steel Company will reveal its process and all the secrets connected therewith, will give the Government the right to use it, will at its own expense defend its use by the Government against all prior rights, and will inform it and give it the use of all improvements, and in return the Government will give the Harvey Company the bare right to bring an action ostensibly for breach of contract, but in effect an action for damages as an infringer, the damages, in case the validity of the patent is upheld, to be liquidated at and limited to one-half of one cent a pound. Such a construction is too contradictory and unjust.

It is, therefore, clear that the clause in question was never intended to permit the licensee to put in issue the validity of the patent in a suit for royalties under the license agreement.

Certainly, the clause can have no sensible meaning except the one here contended for by the claimant, to wit: that the Government is licensed under the patent, for its full term, at the rate of one-half of one cent per pound, but if infringers of the patent should arise, and if, in a suit against *them*, the patentee should be unable to recover, owing to a decision that his patent was ineffectual to protect the exclusive rights to the process and conduct, then, *after the rendering of such decision, in a case against such third parties*, the Government should be placed in an equally favorable position with such parties, and the obligation to pay royalties should cease.

In order to construe this clause in the manner requested by the Government, it would be necessary to disregard all well-settled rules of construction.

The Government before it entered into contractual relations with the Harvey Steel Company had ample opportunity to inquire into the validity of Patent No. 460,262. It could, if it had chosen, have proceeded without a license, and without the assistance of Mr. Harvey and without a revelation of his business secrets, if it thought these things were without value.

When it accepted a license, and when it entered into the agreement of April 12, 1893, which agreement stipulated that "*the party of the first part is the owner of all and singular the patented rights in and to a certain process, known as the Harvey process,* for the treatment of armor plates for use in the construction of vessels, and of the exclusive right to the use and employment of armor plates manufactured according to said process as particularly set forth in Letters Patent of the United States No. 460,262," it should not be allowed to itself contest the validity of the patent, but should be restricted to a relief from royalty only after the patent had been judicially overthrown in a suit against a third party; and the Court of Claims was right and committed no error when it so held.

The contention of the United States upon this point is that "there was expressly reserved to the United States the right to dispute the validity of the patent." The words of the contract, to say the least, are very inaptly chosen to express such a reservation. If the United States had insisted upon making a reservation in the contract, which entitled the licensee itself to dispute the validity, it is safe to say the contract never would have been made. The Harvey Steel Company might be willing to take its chances of a judicial determination of the validity of the patent in an action brought by or against third parties, in which it would have all the protection which the Patent Statutes throw around it, to guard against surprise, but that the Harvey Steel Company would have consented to do all that it was to do, and did do in and by reason of this contract, upon a stipulation that the Government should pay it a royalty, but might at any time,

even the moment after the contract was signed, refuse to pay such royalty until the Harvey Steel Company had litigated and established the validity of its patent, which nobody was attacking, is to suppose that they would voluntarily abandon in the first instance all the advantages which they received from the issue of the patent. But, in point of fact, they did not consent to any such thing. The words cannot be forced into such an interpretation. Counsel for the Government contends (p. 20) that there could be no action by or against third parties, because, as he says, "as there was no possibility that there would be any manufacture of armor plates within the United States except for the United States, it would seem that no such action for infringement would ever be brought;" and at any rate, there was "no incentive for the bringing of any such action by the claimant." It is difficult to understand how the learned counsel overlooked the fact *which was proved at the trial* that there actually were manufacturers of armor plate in the United States who manufactured for other governments than that of the United States, notably for the Government of Russia; that the claimant actually did sue these manufacturers as infringers; that, as a result of these suits, judgment was actually entered—by submission, it is true, but nevertheless entered—enjoining these manufacturers from further infringements of the patent, and that the manufacturers themselves, as a part of the settlement, voluntarily came in and became licensees of the claimant under a royalty, and the judgments that were entered in these actions for infringements are actually a part of the record in this case before the Court of Claims. The argument of the learned Assistant Attorney General, based upon the improbability of such a course of events, therefore, falls to the ground when it appears that the course of events in question was not only not improbable, but that it actually took place.

In the case of Charter Gas Engine Company vs. Charter, 47 Ill. App. Ct. Repts., 36, suit was brought for royalties upon a contract of license which contained the following provision:

"And it is a further condition of this contract that said Charter (the licensor) guarantees to said company (the licensee) the validity of his aforesaid letters patent to this extent, that if said letters patent should hereafter be declared to be invalid either by a court or a board of arbitors * * * said company is to be no longer under obligations to pay royalties under said patent."

Here is a reservation practically identical with that in the present contract. Upon the trial of that case the defendant filed, among other special pleas, one (the third) alleging "that the sole consideration of the contract was that the patent was valid and would give a monopoly, but that it contained no novel device or combination, and did not secure a monopoly." A demurrer to this special plea was sustained, and the Appellate Court, in affirming this decision, stated (p. 52):

"The third special plea was bad because it failed to allege that the defendant had been disturbed in the use of the patent. A licensee cannot raise the objection of the validity of a patent as between the patentee, and the United States, where such licensee has not been molested, because in such case the licensee has got all that he bargained for. By the contract set out in the declaration, defendant was only to be absolved from further payment of royalties upon the patent being declared invalid by a court or board of arbitors."

In support of its position, the appellant contends (Govt. brief, p. 13) that the contract calls for the furnishing by the claimant to the United States of a patented process and that the claimant warranted the validity of the patent. It further says (Govt. brief, p. 13) that "the essence of the consideration for the agreement on the part of the United States to pay royalties for the use of its process was the fact, as represented by the claimant, that such process was a patented one, and the irresistible conclusion is that no such contract would have been entered into by the United States at the time had it not accepted as true the claimant's representation that the process was a patented one."

In answer to the above, it is sufficient to say that if the contract called for the furnishing by the claimant of a patented process, the claimant complied with the contract in this respect. The suggestion that the contract was entered into upon a representation by the claimant that the process was a patented process, which representation the United States accepted as true, with the accompanying inference that the United States had been deceived by some false or erroneous representations on the part of the claimant, is purely imaginary. A patent had been issued for the process which established, at least *prima facie*, and conclusively until it was successfully attacked, the exclusive rights of the patentee. This patent was granted by the United States itself, the defendant in this action and the contracting party in the agreement for royalties. The process which was supposed to be covered by the patent was completely known to the defendant at the time of making the contract (Appellant's Brief, p. 4). It, therefore, had before it all the information possessed by the claimant upon the subject. It knew all that the claimant knew and was not in a position where it could be misled by any representations. Accordingly, the recitals of the contract do not suggest that the United States is proceeding upon any representations made by the claimant, but state in terms that "the party of the first part is the owner of all and singular the patented rights in and to a certain process," etc., and "of the exclusive right to the use and employment of armor plates manufactured according to said process."

The Government brief admits (p. 19) the proposition which, indeed, no one could be heard to deny, "that a licensee cannot set up the invalidity of a patent as a defense to a suit for royalties," but it contends that it is not applicable here because "as a rule a licensee of a patented invention enjoys a practical monopoly, so that it is a matter of indifference to him whether the monopoly is secured by a patent which is valid or invalid;" but that no such situation obtained in the present instance because the contract between

the claimant and the United States did not create such a monopoly.

No contract for the use of a patent right upon the payment of royalties would create a monopoly unless it was a contract for an *exclusive* use, which this was not. But the principle that a licensee, acting under a license, is estopped from setting up the invalidity of the patent as a defense in a suit for royalties is just as applicable whether the license is for the exclusive use or for any partial use, or, as in this case, for such use as the licensee desired. The real reason for the rule has been well expressed by the Court of Appeals of the State of New York in Marston vs. Swett, 82 N. Y., 526, at page 533 :

" Where the patent is apparently valid and in force, the party using it, receiving the benefit of its supposed validity, is liable for royalties agreed to be paid, and cannot set up as a defense the actual invalidity of the patent. The reasons for the rule are that the party has got what he bargained for, that he cannot be allowed at the same time to affirm and disaffirm the patent, and that he cannot in this way force the patentee into a defense of his right and compel him to try it in a collateral action. While the manufacture goes on under such an apparently valid patent, it is presumed to be under and in accordance with the agreement to pay royalties."

The Government brief having erroneously contended that the contract was entered into on the faith of claimant's representations as to the patent, first, that it was valid, and second, that it covered the process, and that it was therefore open to the appellant to show the invalidity of the patent resulting in a failure of consideration, is met not only by the fact that the patent is *prima facie* valid by the fact that the contract contained other covenants besides the covenant of license—namely, the covenant to defend against claims of third parties, the covenant to reveal the composition and the covenant to give information of all improvements. The assumption of these obligations by the claimant in the contract is an essential part of the consideration, partly an executed and partly a continuing considera-

tion, and utterly destroys the theory of failure of consideration under any circumstances.

The Government brief, however, endeavors to meet this by some discursive observations (p. 17) to the effect that "the value of the Harvey process was demonstrated and made known to the world through the efforts and at the expense of the United States," and that this is an answer to any argument that may be based upon the additional covenants in the contract.

This is the most extraordinary contention on the part of the Government in the whole brief. When the attention of the Navy Department was first called to the Harvey process, it saw the magnificent possibilities of the invention and it did all in its power to develop, stimulate and encourage it. It did this for its own interests, and it was amply justified in so doing. Incidentally, its encouragement of the invention and its final adoption of it benefited the inventor and his assignees. There is no question about that. It always happens that if a great discovery is made in mechanical science which will be useful in the operations of Government, its adoption by any government which has a reputation for intelligence and ability will give it an impetus in all the countries of the world; but to say that the inventor is paid for any rights that he may give to the Government, thus adopting his invention by the mere adoption of the same and the consequent prestige which his invention derives is preposterous. Nor was this act of the Government a stipulation in the contract in suit. It was an act done for its own benefit, in its own interest, and prior to the making of this contract. It cannot in any way affect the question of sufficiency of consideration or the question whether the Government in withholding payment of royalties did or did not act in good faith.

The theory that the United States and that the officers who made this contract were ignorant of the subjects of patent law (Govt. brief, p. 24), and that the contract itself was "merely an ingenious snare into which the United States was

allured and in which it is now entangled " (Govt. brief, p. 30), cannot be accepted as correct. General Tracy and Mr. Herbert were as well versed in the law as anybody, and they were the men who made this series of contracts. Of course, we should not have suggested such a line of argument but for the fact that it is seriously advanced by the Government counsel. The idea that courts must give special indulgence to the United States in the case of a breach of contract because the United States is under the necessity of acting through its own officers will not absolve the Government from its obligations. In this case they made no mistake, and they obtained by this contract what became for the United States a priceless possession. The Assistant Attorney General says: " The United States would not have entered into the contract with the claimant to pay it royalties for the use of its process unless it had been understood that that process was a patented one " (p. 29). But was it not a patented process ? And if it was not, did not the Government have every opportunity to know it ? The question of the validity of the patent is another matter, but certainly the patent was there. Counsel says (p. 25) that " Upon the subject of whether the process that produced such armor was novel or patentable, they were not informed and were not supposed to be." For that reason it is assumed that in negotiating with the Harvey Steel Company they were like irresponsible children in the hands of a designing and adroit negotiator. But if Mr. Herbert was not informed upon this subject, how was it with the Commissioner of Patents ? He is also an officer of the United States, and he issued the patent after repeated and exhaustive examinations and declared that the process that produced the armor was novel and patentable. In truth, the argument as to the right to dispute the validity of the patent is far stronger and would come with a far better grace from a private defendant than from a defendant which was the United States itself, because the United States is insisting upon retrying a question already decided by its own Patent Office.

## SECOND POINT.

**The Court of Claims committed no error in declining to examine the prior art in order to construe the patent, as in an action for infringement.**

The contention on behalf of the Government is:

That although the process known as the "Harvey Process," and the armor-plates made in accordance with it, had been exhibited to the Government, had been explained, and had been tested in the fullest way, both before and after the making of the contract of April 12, 1893 (Findings III., IV., V., IX. and XI.), and had been "definitely adopted" by the Government (Finding VII.), and had been demonstrated to be of "satisfactory value and efficiency" (Finding XI.), and although the plates on which royalties are sued for were made under contracts which *required* such plates to be "treated by a process of super-carburization known as the Harvey Process" (Finding XII.), and although such plates were manufactured, treated and delivered "in compliance therewith" (Finding XIII.) and were manufactured "under the inspection and supervision of officers and agents of the Ordnance Bureau, and were accepted and paid for by the Bureau as having been treated by the Harvey process" (Finding XIII.), and although the United States was itself the grantor of the Harvey Patent No. 460,262, and therefore was fully advised, before making any contract with the Harvey Company, of the exact scope of that patent, and although in the contract of April 12, 1893, it was expressly recited that the process "known as the Harvey Process" was "particularly set forth in the Letters Patent of the United States No. 460,262, issued September 29, 1891" (Finding X.)—nevertheless the Government can now contradict that recital, and can rely, as a defense, upon some alleged discrepancy between

the process actually exhibited to them, and tested and used by them, and the description of the same in the patent, which discrepancy does not in fact exist, but which the attempt is made to create by the assumption of a narrow and technical construction of the patent, derived inferentially from the supposed prior state of the art.

It fully appears, by the opinion of the Court of Claims, that the alleged discrepancy is one of an exceedingly technical and trivial nature. The Court said in its first opinion (p. 30):

"The variations from the patent, if any there were, were trivial—so trivial that they were not known to the manufacturers when they made the plates, or to the defendant's officers who supervised the making."

And in the second opinion, the Court said (p. 36):

"The defense rests upon the exceedingly narrow and technical ground, that while both parties supposed they were employing the process as described in the Letters Patent, they in the matter of temperature deviated from the strict letter of its description. The Court is by no means satisfied that there was such a deviation; but whether there was or not, it was unquestionably trivial."

Under such circumstances, it is clear that the Government's contention is wholly without merit or equity.

Our answers to this position are as follows:

(1) THE GOVERNMENT HAS ADMITTED IN THE MOST DEFINITE WAY THAT IT USED THE HARVEY PROCESS REFERRED TO IN ITS LICENSE.

Findings XII. and XIII. are to the effect that the Government, after every opportunity for such knowledge, deliberately admitted and conceded that the process actually utilized in making and treating the plates for the "Kearsarge" and "Kentucky" was in fact the Harvey Process.

This is equivalent to a finding of the fact, for there is no allegation or suggestion in the record of either misapprehension or mistake.

What a party has solemnly and deliberately admitted to be true, must, for the purposes of the case, be held to be true; and especially is this so in the present instance, when it appears that the Court has twice in its opinion held as a fact that there were no deviations in the practice of the Harvey Process other than merely trivial and unimportant ones.

In Greenleaf on Evidence (Sixth Ed., pp. 207, 208), it is said:

"Admissions, whether of law or of fact, which have been acted upon by others, are conclusive against the party making them in all cases between him and the person whose conduct he has thus influenced. It is of no importance whether they were made in express language to the person himself or implied from the open and general conduct of the party. For, in the latter case, the implied declaration may be considered as addressed to every one in particular who may have occasion to act upon it. In such cases the party is estopped on grounds of public policy and good faith from repudiating his own representations. * * *

"It makes no difference in the operation of this rule whether the thing admitted was true or false. It being the fact that it had been acted upon which renders it conclusive."

If objection had been taken in 1893, when the contract of April 12th was made, that there was any discrepancy between the description in the patent and the actual practice of the process "known as the Harvey Process," it could easily have been remedied. The patent was then less than two years old, and a reissue could have been lawfully obtained to correct any error due to inadvertence or mistake. But, of course, the facility for reissue had been greatly impaired or altogether lost in 1898 when the Government set up its present contention.

Again, if the Government in 1895, in contracting for the "Kearsarge" and "Kentucky," had repudiated

the contract of April 12, 1893, and had contracted with the Bethlehem and Carnegie Companies for the manufacture of armor, without conferring upon them any license, the claimant would have been in a position to enforce its rights, if any, against the manufacturing companies; but, instead of that, the Government required the manufacturers to use the Harvey Process, and assured them and the world, including the claimant, that it was acting under a license; and it was only when this suit was brought, years afterward, that the contention was advanced that the process had not been in fact utilized, owing to certain trivial deviations.

Such a course of conduct does not commend itself to the equitable consideration of a Court.

(2) THE LICENSEE WELL KNEW WHAT IT HAD CONTRACTED FOR AND WHAT IT RECEIVED BY ITS LICENSE.

The findings of fact show that the Government, when it entered into the contract on which this suit is brought, knew exactly what the Harvey process was. The facts are such that it should not be allowed to deny this. The Court of Claims says that the Harvey process has always been the same. "The process employed was precisely the process employed in the previously-manufactured armor plates, concerning which the Chief of the Bureau had certified to the 'satisfactory value and efficiency of the process,' and the Secretary of the Navy had paid the reserved 10 per cent" (Transcript of Record, p. 30, line 10 *et seq.*). If the Government was familiar with the Harvey process before and at the time it entered into the contract and voluntarily without fraud entered into an agreement to pay a royalty for the use of the same, it should not be allowed to act under the contract and to use what it and the claimant well understood to be the Harvey process, and then to set up the defense that the process it used (which the Court says was the *same* process for which it contracted) was not properly described in the Harvey patent. It is not alleged even now that

the patent on its face, and construed in accordance with its plain meaning and import does not describe the process used (see request for Finding II, p. 2), but only that the prior alleged state of the art necessitates a construction of the claims which would render them invalid if they cover the process used. The Court was not wrong and did not commit error in refusing to examine the prior art to countenance such a defense.

In the case now before the Court, the licensee examined the Harveyized armor plate in 1890 (Finding III.); it erected a plant and carried out the same Harvey process in its own shops in 1891 (Finding IV.); it secured an option to purchase a license in 1891, after an exhibition of the same process in its own navy yard on February 14, 1891 (Finding IV.); it definitely and formally adopted the same Harvey process (Finding VI.), and it had all of the secrets appertaining to the Harvey process revealed to it in February and March, 1893—all before the present contract was entered into.

The Harvey process, when the contract was entered into, was a well known thing. The contract of license expressly refers to the thing contracted for as a process "known as the Harvey process"; there was no mistaking what it was; the Government knew what it was buying. At that time it was willing to pay a royalty for the use of *this* process and for the business secrets of Mr. Harvey. It used the same process that it knew, and which every one knew as the Harvey process, and now, after having had the benefit of the process, it claims that because the contract of 1893 not only speaks of the process as "known," but also as being described in the Harvey Patent, it can resist payment of royalty, if it can find any discrepancy between the process actually used and the patent which was intended to describe it, or if it once discovers an alleged "prior state of the art," which would tend to restrict a broad construction of the claims. This cannot be done. So long as it acted under the license, it estopped itself from denying such fact.

In *Eureka Co. vs. Bailey Co.*, 11 Wallace, 488, 492, a suit in equity was brought for an accounting for the payment of money under an agreement for the use of a patent.

The defendant set up that its machines were not made under the patent.

The Supreme Court, in overruling this contention, said:

"The defendant company furnished a sample of the machine they were making. That machine is before us. We do not understand that it is seriously contended that this machine does not contain some part of the invention covered by the re-issue of the Allender patent. The effort of the defendant is to show that it is not covered by the original patent to Allender. This latter point will be noticed presently. After making the agreement in this case, an agreement made on due deliberation, the defendant being engaged in the business of making the machines before it took the license—an agreement manifestly intended to adjust conflicting rights—and after furnishing one of the machines as a sample of what it proposed to do under that agreement; and after having made and sold five hundred of them, there arises a very strong presumption that the denial that anything in those machines is covered by plaintiff's patent is made to support an unwillingness to pay the royalty which it had agreed to pay. And we are not at all satisfied that, in equity, it can be permitted to set up this defense, while it makes no attempt, by cross-bill or even in the answer, to show that the agreements were obtained by fraud, surprise or imposition.

But if this could be permitted, the testimony does not repel the presumption, arising from the making of that contract, and the defendant's action under it, that the machines made by it do contain matter covered by the re-issued patent of plaintiff."

In *Hobbie vs. Smith*, 27 F. R., 659, it was said:

"Although the defendants, sued as they are as trespassers, may not be estopped to dispute the validity of the patent, it is thought that the accusations against it come with poor grace from those who were willing to pay large sums of money to be admitted to its privileges; who have built up a flourishing

business, and made large gains, by asserting that the pipe manufactured by them was made pursuant to its specifications; and who, during its life, maintained, both indirectly and by positive assurance, that it was good and valid in law. * * *

"The proposition that the defendants do not infringe because the method adopted by them of rolling the tarred pipes in sawdust is not covered by the patent, cannot be maintained. It is argued that the claim relates only to the coating of pipe with the composition or mixture of hard-boiled tar and sawdust. *Such a construction would be illiberal and narrow in any case, and especially so when demanded by those who have for years asserted that their pipe was made pursuant to the specification, and protected by the claim, of the patent.*"

In *Andrews vs. Landers*, 72 F. R., 670, the Court said:

"As to the so-called 'Andrews Faucets,' I hold, as matter of law, that defendant, having stamped said faucets with the Andrews patent, and having accounted and paid for the same, is estopped to deny that they do not contain the patented improvement of Andrews."

In *Sproull vs. Pratt & Whitney Co.*, 97 F. R., 809, the Court said:

"Having agreed to manufacture under said patent, having stamped said punch with the date thereof, having advertised and asserted that it did manufacture the Kennedy punch, and having accounted and paid royalties on said theory, it should be now estopped to make said defense."

In the case at bar there is present something more than a mere ordinary admission by the licensee that the process contracted for has been used. The conduct of the Government in taking out a license, in advertising for armor to be treated under the license, in superintending the making of the armor, and in accepting and paying for the same as having been so treated, is an admission of a solemn and deliberate kind, which, as we have shown above, cannot now be contradicted without

placing the owners of the Harvey Patent in a less favorable position than they would otherwise be.

In fact, under the laws and regulations controlling in Government contracts, disbursing officers could not have made payment to the armor manufacturers, except upon the certificate of the inspector and Chief of Bureau authorized to make such certifications, that the requirements of the contract had been complied with and, therefore, that the material furnished was in fact treated by the Harvey Process.

Here are found all the elements necessary to constitute virtually an estoppel.

A process is an intangible thing and if there is any question relating to its character or nature to be determined, the proper time to do so is when the process is being carried out. At the time when the Government should have asserted that the process used was not the Harvey process, or that the claims of the patent were limited by the prior state of the art, or did not properly describe the process used if it wished to raise this question, it by its acts asserted that the process used was the Harvey process; and at the time when it should have renounced the license, if it wished to escape the obligations of the same, it acted under the license by advertising for Harveyized armor to be made under the Harvey process and it accepted and paid for the same. Its acts and admissions are inconsistent with the defense advanced.

The point raised by the appellant in reference to the process may truly be said to be of marvelous fineness, if we correctly understand the same as disclosed by the Government brief. It is substantially this: that the Harvey patent prescribed a heat in the heating chamber above the temperature of molten cast iron; that the temperature of molten cast iron is in the neighborhood of 2,000 Fahrenheit; that this temperature was *actually used* in the process, so that the process literally complied with the precise requirement of the patent, but that the attainment of scientific certainty in reference to the degrees on the

thermometer scale of the melting point of cast iron is a thing of recent date; that in 1890, when Harvey obtained his patent, there were conflicting opinions upon the subject; that some of these opinions put it in the neighborhood of 3,000 degrees Fahrenheit; that a person skilled in the art at that time would have been justified in considering this latter figure as the *indication* of a temperature equal to the melting point of cast iron; that Harvey must have meant the erroneous high figure when he so designated his temperature in the claim, because a similar process had theretofore been used in making "mint rolls" and other objects (though never with armor plate) at a temperature in the neighborhood of 2,000 degrees; that, consequently, considering the patent in the light of the prior state of the art, it might have been held to be invalid unless it was limited to the erroneous higher temperature; that therefore it must be construed as being so limited, and that, so construed, the actual process showed a departure from it in this respect. It is not surprising that the Court of Claims held that the alleged departure, if it existed at all, was too trivial for consideration.

In order to make anything out of this point the learned Assistant Attorney General is forced to contend (p. 32) that there is nothing to show "that the United States was fully informed as to the Harvey process or had made ample tests of the same as a process at the time of the making of the final contract." But this is in direct contradiction not only with the repeated and emphatic statements in the opinion of the Court, but with his own admission. For, after dwelling upon the "numerous experimental tests" by claimant and the Navy Department (p. 3), he states that in February and March, 1893 (p. 4), the United States "required the claimant and its Mr. Harvey to give to the Navy Department its secret proces s and improvements, which was done." In the face of this admission it will be difficult to persuade any one that the Navy Department and the very able Chiefs of

the Bureau of Ordnance at that time were in ignorance of anything pertaining to the Harvey process. The only thing that was asked for in February and March, 1893, was the composition of the carbonaceous mixture, and when that was obtained Captain Sampson knew the Harvey process as well as Mr. Harvey himself.

## THIRD POINT.

**The Court of Claims, in fact, found that the process used was that described in the Harvey Patent.**

It is true, that the Court in its first opinion (Record, p. 32) declined to enter into an examination of the patent, and of the exact construction which should be given to it, or into the state of the prior art, in the way in which those subjects would be entered into in an action for infringement.

There was nothing in the case which called for a critical or exact construction of the Harvey Patent, as would be necessary in an infringement suit.

It is not even alleged that the patent, on its face, does not cover the process actually used.

The contract itself and the conduct of the parties had placed such a clear construction on the patent that it was unnecessary to treat that matter of construction with great refinement.

But the Court did look into the patent to an extent *sufficient for the purposes of this case.*

Finding II. of fact is that the Patent No. 460,262 is "for *such* Harvey process and armor plates."

This means that the patent is in fact for the "Harvey process" referred to in the other finding, as, in fact, exhibited to the Government and adopted and used by it.

Findings XII. and XIII. are that the manufacturers in fact complied with the advertisements and circular of the Government which explicitly called for armor treated by the "Harvey process," and that "in compliance therewith, they proceeded to manufacture and treat the armor plates" (Rec., p. 27).

Chief-Justice NOTT, in giving the opinion of the Court, said:

"The variations from the patent, if any there were, were trivial—so trivial that they were not known to the manufacturers when they made the plates, or to the defendants' officers who supervised the making. They were not discovered by the Ordnance Bureau until after the first work was completed, but they were known to the Bureau when the last work—the work involved in the case—was contracted for as plates to be manufactured by the Harvey process, and under the Harvey Patent and in pursuance of the Harvey contract.

"The process employed did not differ from the process which had been employed for the preceding plates" (Rec., pp. 30, 31).

"The process employed was precisely the process employed in the previously manufactured armor plates, concerning which the Chief of the Bureau had certified to the satisfactory value and efficiency of the process" and the Secretary of the Navy had paid the reserved 10 per cent. (Rec., p. 30).

This shows that the patent was, in fact, sufficiently compared by the Court of Claims with the process actually used by the Government, and is a clear finding that there were no material departures in the manufacture of armor plates for the Government from the Harvey process as patented.

Variances, if any, were "trivial," and of such a character that the defendant could not be heard, and was, in fact, estopped from asserting that such trivial changes were substantial, because it was fully aware of them before it made the contract of 1893, and before it advertised for bids for the armor plates here in controversy.

But this is not all.

The defendant moved in the Court below for a new trial on the very ground now alleged as error, and the Court thereupon proceeded to look into the patent and *make a further ruling* on the question of alleged departure from it by the defendant.

The sole and only basis of that motion for new trial was the alleged error that the Court had erred "*in refusing to enter into an examination of the patent* and the state of the art, and to construe said patent" (Rec., p. 36).

The Court, in overruling the motion, negatived completely the allegation that it had not examined the facts relied upon, for it expressly said that it "*remains of the opinion that the facts relied upon do not constitute a defense*, and that a consideration of them is not properly admissible in an action founded, like this, upon an express contract."

Now, what were the "facts" relied upon by defendants?

This record does not contain them.

The Harvey Patent even is not in the record, nor are any of the patents of the alleged prior art.

There are certain *requests* of the defendant to find certain facts, but it is to be particularly noted that the defendant *never requested the Court to find either that the Harvey Patent was invalid, or that it did not cover and include the process actually used by the defendant's manufacturers.*

There are a large number of requests to find various *evidential* facts, generally stated, from which it will be now sought to *infer* that the patent, *which is not in the record*, was or may be invalid, or *might* be interpreted in such a way as to be invalid if its claims cover what defendant used. Just what such process actually used by defendant was, does not appear. The Court was asked in defendant's request VII. to find that a certain described process was used, but it declined to make such finding not only because it was irrelevant, but "as not being sustained in essential particulars by

the weight of evidence." This ruling cannot, of course, be here reviewed. The record is not before this Court.

But on the essential fact that the Court of Claims *did not decline* to look into the patent and compare the process used by defendant therewith, the opinion denying the motion for new trial is most explicit. The Court said (p. 36) :

" The defense rests upon the exceedingly narrow and technical ground that while the parties supposed they were employing the process as described in the Letters Patent, they, in the matter of temperature, deviated from the strict letter of its description.

" The Court is by no means satisfied, as a matter of fact, that there was such a deviation; but whether there was or not, it was unquestionably trivial. The process intended to be described in the patent, and supposed to be described, was employed, and the results, as before stated, were all that its officers desired, and more than they expected."

The Court committed therefore no error.

It was entirely correct when receiving and considering as conclusive the evidence that the process utilized was what was known and understood by the parties as the Harvey process.

It found no conflict between that and the Patent No. 460,262, in any material or substantial point.

It did not decline to compare the process utilized by the Government's manufacturers with Harvey's claims, but did in fact so compare the same, and found the variations " trivial."

The Court properly declined to consider in the present case an alleged prior state of the art or any alleged limiting effect of the same upon te construction of the patent, as would be necessary in a suit for infringement, because the circumstances of the present contract and the proofs of the character of the subject matter and of the knowledge of the contracting parties of the same, properly estopped the defendant from contending that the process it had used was not the process referred to in the contracts.

In *Eureka Co. vs. Baily Co., supra*, 11 Wall., 488, 492, the Court declined to place upon the patent "an exceedingly restricted construction," because the conduct of the defendants and their receipt of full consideration for the contract, rendered it absolutely inequitable to allow the defendants to import into the contract, or into the patent claims, restrictions which were not mentioned in those claims, and which the conduct of parties showed had never been contemplated. So in the present case the Court of Claims properly declined to enter upon the question of the validity of the patent by comparison with the prior art, because the suit, being upon a contract, and there being no possible valid contention of failure of consideration, the defendants were estopped from raising that issue.

## FOURTH POINT.

**The Court committed no error in refusing to make findings as requested by the Government, in the Government's proposed findings Nos. 5, 6, 7 and 8, nor did it commit an error in holding the Government's proposed findings 11 to 30 inclusive to be irrelevant and immaterial.**

The findings of fact made by the Court are complete and the defendant's proposed findings are immaterial.

Most of these proposed findings are immaterial for the reason that the facts sought to be determined have no bearing whatever on any of the questions in issue. The others are immaterial for the reason that the Government is estopped from asking for a judicial determination of the facts involved.

The defendant sought by these requests to lay some

foundation for the contention, that (1) the Harvey Patent was invalid, or (2) that it should be construed so narrowly in regard to the temperature used in making the plates that the defendant's process would be found to vary therefrom.

It is to be particularly noted however that the defendant did not make any request to find the *ultimate* facts which it now contends that the Court should have found.

It did *not* request any finding either that the *patent was invalid*, or that the process described in it had *not been used by the defendant.*

On the contrary, its proposed findings were not of those ultimate and material facts, but only of certain evidence intended to be made a basis for *inferring* or *arguing* the existence of such facts.

Proposed findings Nos. 5 and 6 read :

" 5. At various times after April 12, 1893, armor plates were furnished to the United States by various armor manufacturers, which had been subjected to some kind of a supercarburizing process. Among such plates were those furnished for the vessels *Kearsarge* and *Kentucky.*"

" 6. The plates so furnished for the *Kearsarge* and *Kentucky* were manufactured by the Bethlehem Iron Company and the Carnegie Steel Company, Limited, and the process of supercarburization to which they were subjected was applied by those companies."

The proposed findings are vague and indefinite and if found specifically as requested, would not have any bearing on the questions involved. Moreover, the subject matter of these proposed findings is all embodied in more specific and accurate form in findings of fact Nos. XII. and XIV. These findings show that the Bethlehem Iron Company and the Carnegie Steel Company made a certain amount of armor for the *Kearsarge* and *Kentucky*, which was made under specifications calling for Harveyized armor, which specifications were complied with, and that the armor was accepted and paid for by the Government as Harveyized armor.

Proposed finding No. 7 sets forth a process which the Court was requested to find was the process employed by the manufacturers in making the armor for the *Kearsarge* and *Kentucky*. The Court refused to make the finding and held (lines 1 and 2, p. 36) that the same was irrelevant and *not sustained in essential particulars by the weight of evidence.* This finding cannot be reviewed as the record is not here, and the Court held it was not sustained by the evidence. It is clearly irrelevant, since whatever the process employed by the manufacturer was, the Government has admitted that the same was the Harvey process, as we have previously pointed out.

Proposed finding No. 8 reads :

"8. The result of the treatment mentioned in finding 7 was to add carbon to the face of the plate against which the carbonaceous material had been packed and such added carbon gradually decreased from the surface inward. The result of the chilling or quenching process was to harden said surfaces of the plates so they would not respond to the action of a file. The average increase in the amount of carbon at the surface of the plates after treatment was about seventy-five one-hundredths of 1 per cent.; in some plates there was more and in some less. In very few, if any, was there 1 per cent. of carbon added at such surfaces, and in some plates the addition fell as low as fifty-four one-hundredths of 1 per cent. In no case did the additional carbon penetrate to a depth of 1½ inches below the surface and frequently it did not penetrate more than 1 inch and in some cases the penetration was less than 1 inch. Before treatment the steel contained about twenty-five one-hundredths of 1 per cent. of carbon."

There is nothing in the record to lead to the belief that the facts herein alleged are not within the Harvey process or Harvey Patent.

All of the facts set forth in this finding might be true or false without in any way affecting the right of the Harvey Steel Company to recover. The contract of April 12, 1893, is not contingent on the amount of

carbon which penetrates the plate, nor on any of the other conditions embodied in this finding, nor is there anything to show that the facts, if true, vary the process from Harvey's.

Proposed finding No. 11 reads :

" 11. The essential features of the process described in United States patent 460,262 and in Claim 1 of that patent are as follows :

" 1. Operating on a low steel plate.

" 2. Packing carbonaceous material on one side of the plate and non-carbonaceous material on the other.

" 3. Subjecting the plate so packed to a high heat.

" 4. Hardening the plate while it is cooling off after its subjection to said high temperature by spraying it with cold water."

There is nothing to show that this proposed finding is material. The " features " are stated *in very vague and general terms.* The patent itself is not called for.

It might be that the steps set forth are the essential steps in claim 1 of the Harvey process. But there may be other " features " in claim 1 of the patent, or limitations and specific modes of applying the above-named " features." The Court of Claims found that the Government contracted for the use of the Harvey process ; that they used the Harvey process for which they contracted with " trivial " variations, if any. Moreover, the Court found that the Government, by its conduct, had estopped itself from denying the use of the process.

Certainly these facts, as set forth in the findings of fact and in the opinion of the Court, render this finding entirely unnecessary.

But if this proposed finding as to the essential steps of the Harvey patent should be compared with proposed finding 7 as to defendant's process, and both be assumed to be true, it will be plain, *on defendant's own contention,* that the patent *does* in fact cover the defendant's process.

Proposed finding No. 12 is to the effect that the " steps " or " combination of steps " of the Harvey

Patent was not new, unless a certain high heat was used.

It does *not* request the Court to find the Harvey Patent No. 460,262 to be invalid. If it did, the rule of law is that a licensee cannot deny the licensor's title, and hence this request was properly denied.

But all the facts stated in the request might be true, and yet the patent might be *broadly* valid.

It is not necessary for the validity of a patent for a process, as applied to the making of a *particular* and *special* product, that any of the steps of a process should be new, nor that their combination should be new. It frequently happens that the novelty of a process consists in its *application* to a new use, or in connection with a new or non-analogous subject, such as *armor* making and the treatment of heavy and massive plates, to enable them to resist *penetration* by pointed projectiles.

In *Mowry vs. Whitney*, 14 Wallace, 620, the patent in suit was for a process of subjecting car wheels to a high heat and then slowly cooling the same. The car wheels were iron castings, liable to deterioration from rapid or unequal cooling, because of the peculiar strains which were developed in them, due to the fact that their flanges were cast much thinner than their treads. Other castings had previously been annealed and slow cooled in the same way, but they had not been liable to the same disadvantages as car wheels.

This Court said:

"The novelty of the patentee's invention is not therefore, disproved by evidence that glass or speculum metal, or even other iron castings, had been annealed and slow cooled prior to the time when it was made. Of this there is very considerable evidence, both in the testimony of witnesses and printed publications. The specification disclaims invention of annealing iron castings in the ordinary mode. It claims annealing them when applied to cast iron railroad wheels, in the mode or by the process described. It is not, therefore, merely an old contrivance or process applied to a new object, a case of double use. A new and previously unknown result is obtained—namely, the relief

of the plate of the wheels from inherent strain without impairing the chilled tread, a result which, though anxiously sought, has not been obtained before Whitney's invention."

And again:

"In all the experiments made for annealing other castings, the object sought was different, and in them all, as well as in the process described in the publications given in evidence, the effect upon the annealed metal or glass was not to leave them in the condition in which it was sought to bring the car wheels."

The radically new object of the process in Harvey's case was to form an *armor plate* which would successfully resist penetration and the *separating* effect of projectiles, by producing the *effect* of *an ideal weld* between an outer intensely hard steel face and an inner soft steel back, entirely different from the fragile and imperfect welds which had been formed between separate plates of differing material (Opinion, pp. 28–9).

No such "effect" or *result* had ever been produced before.

In *Potts vs. Creager*, 155 U. S., 597, the Supreme Court said (p. 607):

"Indeed, it often requires as acute a perception of the relation between cause and effect, and as much of the peculiar intuitive genius which is a characteristic of great inventors, to grasp the idea that a device used in one art may be made available in another, as would be necessary to create the device *de novo*. And this is not the less true if, after the thing has been done, it appears to the ordinary mind so simple as to excite wonder that it was not thought of before. The apparent simplicity of a new device often leads an inexperienced person to think that it would have occurred to any one familiar with the subject; but the decisive answer is that with dozens and perhaps hundreds of others laboring in the same field, it had never occurred to any one before. The practiced eye of an ordinary mechanic may be safely trusted to see what ought to be apparent to every one."

So in the present case, the availability of the practice of supercarburization applied under the special conditions of high and prolonged heat, and followed by violent chilling in running water, *to an armor plate*,

with its vast mass and peculiar dangers, and special requirements, to confer upon it an "ideal weld" between the hard face and soft back, and adapt it to resist penetration of pointed projectiles, although it now seems simple, was, in fact, not obvious to the most skilled manufacturers, as the Court of Claims clearly implied in findings III. and IV., and in the opinion (p. 28).

In *Carnegie Steel Co. vs. Cambria Iron Co.*, 185 U. S., 427, the patent was for a process of producing uniformity by mixing the products of *blast* furnaces, which had previously been used in connection with *cupola* furnaces, the Court held the patent valid, and said:

"An attempt was made to show that the Jones invention was anticipated by the practice common in steel works prior thereto of tapping iron from cupola furnaces into a receiving ladle, from which it was poured into the converters. Molten iron was tapped from several cupolas into this ladle, from which a charge was drawn and delivered to the converter vessel. Of course, if the ladle were of greater capacity than was necessary to charge a single converter, a residuum of metal would be left in it; but this seems to have been merely an incident of the operation of the ladle, which was used primarily for storage, and to have been of no substantial benefit in securing uniformity of product, which can only be obtained by making the receiver of larger size and retaining a considerable quantity of metal in it after each discharge.

* * * * * *

"But if the Whitney [iron foundry] practice were primarily for the purpose of mixing, and were adequate for that purpose when applied to cupola metal carefully selected beforehand, it might be, and evidently would have been, wholly inefficient when used for the purpose of unifying the products of blast furnaces—in other words, for the Jones process; and it might and did require invention to make such changes as were necessary to adapt it to such purpose. Doubtless there was such mixing as the carefully selected cupola metal required for the purpose of manufacturing car wheels, but the fact that the Whitney practice was used for cupola metal has but little tendency to prove that it was adaptable without change to metal tapped

from blast furnaces, which varied so largely in chemical composition."

Sometimes the *size* of articles which embody a practice of an invention is an important consideration. The Edison incandescent lamp differed from its predecessor only in the fact that it utilized for illumination a greatly diminished cross section of carbon. Yet the difference in results, *due to the change in size*, were so important as to indicate and establish the existence of *invention*, and it was so held by the Court (Walker on Patents, Sec. 31*a*).

The finding No. 12 is therefore so vague and general that even if defendant were not estopped, the facts recited are not set forth so as to be certainly material.

Proposed finding No. 13 is: "The melting point of cast iron is known to vary from 1,880° F. to 2,282° F., according to variety."

There is nothing to show that this is material. Whatever the thermometric melting point of cast iron may be, it has no bearing on any point in issue in this cause.

Proposed finding No. 14 reads:

"14. The fact mentioned in finding 13 was not established until several years after United States patent 460,262 was granted. At the time said patent was granted many authorities well recognized in the metallurgy of iron and steel *maintained* that the melting point of cast iron was sometimes as high as 2,920° F. A person skilled in the art at that time would have been perfectly justified in holding to said opinion."

It is not material to this cause, what some authorities once *thought* or "would have been justified in holding" about the melting point of cast iron. There is nothing to show that Mr. Harvey thought the same as did the "authorities" referred to in the proposed finding; nor that the Commissioner of Patents, when he issued Patent 460,262, *thought* the same. If the Harvey Patent had been in the record, it would be seen that the claims are plain and explicit, and the

erroneous "thoughts" of third parties can in no way destroy their true meaning.

Proposed finding No. 15 reads:

"15. For hundreds of years prior to the application for patent 460,262 it was common knowledge in the art that iron or low steel would take up carbon if heated in contact with carbonaceous material. Such operations at various temperatures had been of the most common occurrences for at least a hundred years prior to said application, and the articles being carburized were often heated to 2,400° F., and even higher. Such facts were also frequently set forth in patents and publications."

The Court was right in refusing to make such a finding as this, for the reasons (first), that the capacity of steel or iron to take up carbon had no relevancy, Harvey having applied that knowledge in a peculiar way, and for the purpose of effecting a new result, and (second), because the validity of the patent was not in issue and the facts sought to be found would not be pertinent or relevant for any other purpose than to attack its validity.

The same criticism applies to proposed findings 16, 17, 18, 19, 20, 21, 22, 23, 24 and 25. These requests were that the Court should find that protecting of parts of an article from carbonization (16) and that gradual penetration of carbon (17) and that quenching with cold water (18) and that deep carbonization (19) and that hardening of "mint rolls" by same process (20) and that "hammer dies" (21) were all old and well-known, and that there was an English Patent to one Spencer for same process as defendants (23). All of the proposed findings had no relevancy, except to *attack the validity of the patent* or to limit the validity of the patent so as to exclude the defendant. The Government, by becoming a licensee and entering into a contract which recited that the Harvey Steel Company was the owner of certain patent rights, and by entering upon and enjoying such rights, estopped itself from denying the existence of such rights and the validity of said patent, or from calling on the Court to examine

the prior art or determine the limits of the patent's validity.

All of the alleged facts recited in the findings might be true, and yet the Harvey Patent clearly covers on its face the defendants process, and also might be perfectly valid.

The application of even an old process to a new and useful and non-analogous use has often been held by this Court to be patentable. "Mint rolls" and "Hammer dies" are not shown to be analogous to armor plate nor are the conditions of the use and capacities for resistance alike.

Proposed findings Nos. 26 and 27 read:

"26. The melting point of copper is above the melting point of the more fusible kinds of cast iron."

"27. The melting point of wrought iron is about 2,687° F."

Both of these findings might be true or false without in any way affecting the right of the Harvey Steel Company to recover.

The same is true of proposed finding 28.

Proposed finding No. 29 is:

"29. There was no novelty nor invention in the use of any *particular carbonaceous material* employed on the plates for the *Kearsarge* and *Kentucky*."

This is a suit brought on a contract to recover royalties for the use of the Harvey process and the Harveyized armor plates, as well known to the parties. The contract of April 12, 1893, specifies:

"It is hereby further mutually understood, covenanted and agreed by and between the parties hereto, that the party of the second part shall have the right to use and employ the aforesaid Harvey process in the process in the treatment of armor plates for vessels * * * paying therefor to the party of the first part a royalty of one-half of one cent per pound of the finished plate."

The Harvey process, as understood by the parties to the contract, is not shown to be limited or to depend

on the use of any particular carbonaceous material. Neither does the contract make the payment of royalties contingent on the use of any certain compound.

Clearly this proposed finding is both immaterial and rrelevant.

Proposed finding No. 30 is :

" 30. The temperature of an article being carbonized within an air-tight case is much lower than the temperature of the heating chamber surrounding the case."

Admitting this to be true, the finding does not alone or with the other findings, or proposed findings, in any way tend to show that the Government has not received that for which it contracted.

Nor does it tend in any way to show that the royalty promised is not due.

## FIFTH POINT.

**The Court of Claims was not bound to make any of the findings proposed by the defendant and its reasons for not doing so are not open to review.**

The " findings " of the Court of Claims are for the convenience of this Court, and requests to find are not to be likened to requests to a *Jury* upon which the Court is to be " caught " and upon which error is to be predicated.

We know of no case in which refusal of requests to find facts has been successfully urged as a reason for reversal.

The question on the record of an appeal from the Court of Claims is as to the sufficiency of the facts found.

In *Burr vs. The Des Moines Railroad and Navigation Co.*, 1 Wall., page 102, explains clearly what is necessary to be set out in the findings.

"The statement of facts on which this court will inquire if there is or is not error in the application of the law to them, is a statement of the ultimate facts or propositions which the evidence is intended to establish, and not the evidence on which the ultimate facts are supposed to rest. The statement must be sufficient in itself without inferences or comparisons, or balancing of testimony, or weighing evidence, to justify the application of the legal principles which must determine the case. It must leave none of the functions of a jury to be discharged by this court, but must have all the sufficiency, fullness, and perspicuity of a special verdict."

In Calhoun's case, 14 C. CL. R., 193:

"In this court where the facts are found by the judges in the form of a special verdict, there is no resemblance to the action of an independent body of jurors, as in courts of common law; and motions analogous to motions to set aside a verdict as against the weight of evidence cannot be allowed as a matter of right."

In *Union Pacific R. R. vs. United States*, 20 C. Cl. R., 508, the Court said:

"Rules IV. and V. of the Supreme Court in relation to appeals from the Court of Claims, are now as follows:

"Rule IV. In all cases in which either party is entitled to appeal to the Supreme Court, the Court of Claims shall make and file their findings of facts and their conclusions of law therein, in open court, before or at the time they enter judgment in the case."

"Rule V. In every such case each party at such time before trial and in such form as the court may prescribe, shall submit to it a request to find all the facts which the party considers proven and deems material to the due presentation of the case in the findings of facts."

"Formerly the provisions of Rule V. were quite different and were as follows:

"In all such cases either party on or before the hearing of the cause, may submit to the court a written request to find specifically as to any matter of fact which such party may deem material to the judgment in the case; and if the court fails or refuses to find in accordance with such prayer, then such prayer and refusal shall be made a part of the record certified on the appeal to this court" (9 Wall., VII.).

After several years' trial, experience proved that the practice under the old Rule V. led to great difficulties and embarrassments, without contributing in any degree to the better presentation of the case. The requests for findings of fact filed by the parties were often so diffuse in language and so interspersed with irrelevant matter, evidence, and propositions of law, either directly or inferentially, that a satisfactory finding or ruling upon each one separately could not well be made, and if made, its bearing upon the case, as presented by the findings of the court, drawn with reference to each other and all properly connected together, was difficult to ascertain.

Accordingly the Supreme Court changed that rule several years ago (Jan. 29, 1879). As it now stands this Court is not required to find specifically and separately as to all matters of fact in the form requested by the parties. It must make a "finding of the facts in the case, established by the evidence, in the nature of a special verdict," to constitute part of the record upon which the case may be reviewed by the Supreme Court on appeal, as prescribed by the second paragraph of its first rule on the subject; and that has been done in the present case.

The requests required to be submitted by the parties are for the assistance of the Court in making up its finding, and not for the purpose of obtaining specific rulings on each one separately in the form by them presented.

The practice of the Court is to give to the requests of the parties the fullest consideration and the most careful scrutiny, and without finding or ruling upon each one separately, to make up an accurate and connected finding, in its own language in such a way as to cover every material fact asked for on either side, and to present to the Supreme Court on appeal, a clear and concise statement of the case, upon which questions of law may be there reviewed.

If the claimant's present request should be complied with, the Supreme Court on appeal, would have before

it two series of findings, and if also a like course should be pursued in reference to the defendants' requests, it would have three series instead of one as contemplated by paragraph 2 Rule 1 above mentioned. That would lead to difficulty if not to confusion and uncertainty.

The findings actually made are complete and justify the conclusion of law.

The Court of Claims committed no error and its judgment should be affirmed.

Respectfully submitted,

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JAMES RUSSELL SOLEY,
Counsel for Appellee.

# Supreme Court of the United States.

No. 275.—October Term, 1904.

The United States, Appellant,
*vs.*
The Harvey Steel Company. } Appeal from the Court of Claims.

[January 16, 1905.]

Mr. Justice Holmes delivered the opinion of the Court.

This is a claim for royalties upon a contract made between the parties to the suit under the following circumstances. The Harvey Steel Company is the owner of a patent, numbered 460,262, for a process for hardening armor plates and for armor plates. After careful experiments, made by the Navy Department before the patent was granted, a contract was made on March 21, 1892, the material elements of which are these: It recited that the company was the owner of the patented rights to a process "known as the 'Harvey Process' for the treatment of armor plate for use in the construction of vessels"; an agreement that armor plate "treated under the said 'Harvey process'" shall be applied to certain vessels; the previous giving of an option to the Navy Department "of purchasing the right to use and employ the 'Harvey process' for treating armor plates, as follows: 'We hereby agree to give to the Navy Department an option for the purchase of the application of the Harvey process for treating armor plates, which was tested at the Naval Ordnance Proving Ground, Annapolis, Md., February 14, 1891,'" on terms set forth, one of which was that Harvey, the inventor, should furnish all details in his possession, or which he might develop in the perfection of his methods; the acceptance of the offer by the Navy Department; and an agreement by the United States to pay the expense of applying "the said process," &c. The contract then went on to agree that the United States, upon the terms stated, might use "the hereinbefore-mentioned process known as the 'Harvey process'," gave the company a royalty of one-half of one cent a pound up to $75,000, when the royalty was to cease, and stated other terms.

This contract had conditions for further tests, &c. Numerous further experiments were made, and on October 8, 1892, the company was informed by letter that "the Harvey process for armor plate has been definitely adopted by the Navy Department." In pursuance of the offer mentioned in the contract, the Navy Department required and received from Harvey a revelation of the secret process and improvements, and thereafter, on April 12, 1893, the parties made a new contract upon which this

suit is brought. This recited, as before, that the company was owner of the patented rights to a process "known as the Harvey process," and referred to the patent by number and date. It then recited the making of the agreement of March 21, 1892, "whereby the party of the first part granted to the party of the second part the right to use and employ the Harvey process aforesaid," &c. It then cancelled the old contract, and agreed that, in consideration of $96,056.46 royalty, the United States might use "the aforesaid Harvey process" for all naval vessels authorized by Congress up to and including July 19, 1892, and further, that it might use the "aforesaid Harvey process" upon vessels authorized after that date, "paying therefor" a half a cent a pound. The company covenanted to hold the United States harmless from further claims, and from demands on account of alleged infringement of "patented rights appertaining to said process;" to furnish full information regarding the composition and application of the compounds employed in the Harvey process, and all improvements which it might make upon "said process as covered by the aforesaid letters patent," and that the United States might adopt and use such improvements. Finally, it was agreed that "in case it should at any time be judicially decided that the party of the first part is not legally entitled, under the letters patent aforesaid, to own and control the exclusive right to the use and employment of said process, and the decrementally hardened armor plates produced thereunder, as set forth in the letters patent aforesaid, then the payment of royalty under the terms of this agreement shall cease, and all sums of money due the party of the first part from the party of the second part, as royalty for the use and employment of said process, and armor plates, as aforesaid, shall become the property of the party of the second part."

The United States has built battle ships armored by the Harvey process communicated to it, and, subject to the questions which will be mentioned, by the terms of the contract there was due a royalty of sixty thousand eight hundred and six dollars and forty-five cents, to which sum the Court of Claims found the claimant entitled. 38 C. Cls. R. 662. It never has been judicially decided that the claimant has not the rights mentioned in the last quoted clause of the contract. The United States asked additional findings, which, it now contends, would establish that the patent was invalid, or, if valid, valid only if restricted to the use of a heat above 3100° Fahrenheit, in which case the patent was not used by the United States. These findings were refused as immaterial and the United States appealed. The main question is whether, under the last quoted clause of the contract, the United States can set up the invalidity of the patent in this suit. It is argued also that the United States ought to have been allowed to show that it had not used the patent, properly construed, although it is not denied that

it has used the process communicated to it and known in common speech as the Harvey process.

It is not argued that there was a technical entire failure of consideration. The claimant was under continuing obligations, which it is not suggested that it did not perform or is not still performing, and one of which, the imparting of its secret information and improvements, it had performed under the original agreement, out of which the last contract sprang. The argument is put mainly on the construction of the clause quoted, coupled with the further argument that the United States ought not to be estopped as licensee to deny the validity of the patent because it is not a vendor but simply a user of the patented article, and therefore has not enjoyed the advantage of a practical monopoly, as a seller might have enjoyed it even if the patent turned out to be bad. This distinction between sale and use, even for a non-competitive purpose, does not impress us. So far as the practical advantage secured is matter for consideration, whether a thing made under a patent supposed to be valid, is used or sold, it equally may be assumed that the thing would not have been used or sold but for the license from the patentee. We regard the clause in the contract as the measure of the appellant's rights.

The words of the condition on which the payment of royalty was to cease, taken in their natural and literal sense, do not mean what the Government says. A plea of that condition, to satisfy the words "in case it should at any time be judicially decided" that the patent was bad, would have to be that it had been decided to that effect. It would not be enough to say that the defendant thought the patent bad, and would like to have the court decide so now. We see no reason to depart from the literal meaning of the words. It is argued that so construed they are very little good to the United States, since private persons would not use the armor plates, and the more the United States used them the larger would be the royalties which the company received, so that it would have no motive, even if it had a right, to sue the makers of the plate. It is answered that armor was made for foreign governments, and that the makers were sued by the claimants in good faith, although, as it turned out, the final decrees were entered by consent. And it is argued on the other hand that the Government's construction would put the claimants at a great disadvantage, and would be giving up all benefit of the patent at the moment it was issued. We do not amplify the considerations of this sort on one side or the other. They are too uncertain to have much weight. The truth seems to be that the proviso is a more or less well-known and conventional one in licenses, *Charter Gas Engine Co.* v. *Charter*, 47 Ill. App. 33, 51, not a special contrivance for the special case, and that fact alone is enough to invalidate attempts to twist the meaning of the words to the

interest of either side. The proviso was inserted, no doubt, on the assumption that a licensee, when sued for royalties, is estopped to deny the validity of the patent which he has been using, and to give him the benefit of litigation by or against third persons, notwithstanding that rule.

We have somewhat more difficulty with the other question mentioned. It is argued that the agreement was only to pay for the use of the process covered by the patent named, and that if the meaning of the parties was to cover anything broader than the patent, even what was known in their speech as the Harvey process, that meaning could be imported into the contract only by reformation, not by construction of the contract as it stands. But we are of opinion that this defence also must fail. In the first place, it is not fully open on the record. The findings asked had a different bearing. All that were asked might have been made without necessitating a judgment for the United States as matter of law and the Court believed that the difference between patent and process was trivial. But we should hesitate to admit the defence in any event. The argument is that at the time of the contract it was supposed that the heat required for the process was greater than that actually used, that the patent was valid only for a process with the greater heat, and that the contract covers no more than the patent. But the fact that the parties assumed that the process used and intended to be used was covered by the patent, works both ways. It shows that they thought and meant that the agreement covered and should cover the process actually used. We think that this can be gathered from the agreement itself apart from the mere supposition of the parties. The contract dealt with a process "known as the Harvey process." It imported the speech of the parties and the common speech of the time into the description of the subject matter. The words, Harvey process, commonly are put in quotation marks in the first contract, thus emphasizing the adoption of common speech. They mean the process actually used. The contract states that it is dealing with the same thing that had been the subject of the former agreement. That agreement further identified that subject as a process which was tested at the Naval Ordnance Proving Ground. It also identified it, it is true, as a patented process, but, if the incompatibility of the two marks is more than trivial, as it was regarded by the court which found the facts with which we have to deal, the identification by personal familiarity and by common speech is more pungent and immediate than that by reference to a document couched in technical terms, which the very argument for the United States declares not to have been understood. It is like a reference to monuments in a deed. As we have said, this identification by personal experiment and by common speech is carried forward into the contract in suit. The latter contract manifests on its face that it is dealing with a process actually in use, which

requires the communication of practical knowledge and which further experience may improve.

We have not thought it useful to do more than indicate the line of thought which leads us to the conclusion that the claimant must prevail. We have confined ourselves to the dry point of the law. It might have been enough to say even less and to affirm the judgment on the ground that the findings asked and refused, so far as they were not refused because not proved, were only grounds for further inferences, not a special verdict establishing the defence as matter of law. But the fuller the statement should be made the more fully it would appear that the United States was dealing with a matter upon which it had all the knowledge that any one had, that it was contracting for the use of a process, which, however much it now may be impugned, the United States would not have used when it did but for the communications of the claimant, and that it was contracting for the process which it actually used—a process which has revolutionized the naval armor of the world.

*Judgment affirmed.*

True copy.

Test:

*Clerk Supreme Court, U. S.*